

# PATENT ABSTRACTS OF JAPAN

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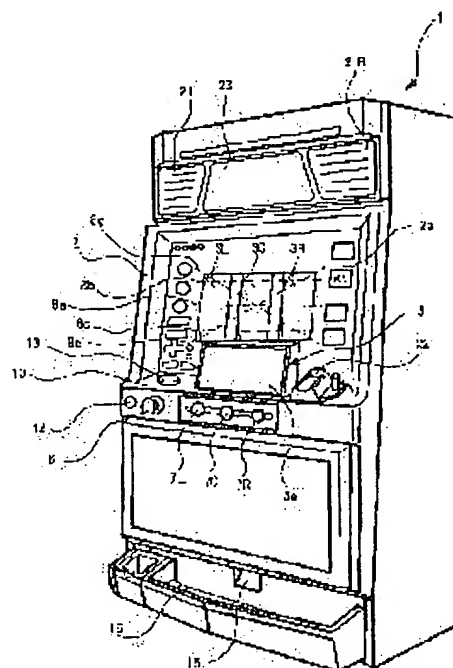
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## (54) GAME MACHINE

### (57)Abstract:

**PROBLEM TO BE SOLVED:** To provide a game machine which eliminates unfairness due to the least chance to grasp ongoing situations in games by allowing players to grasp the situations easily.

**SOLUTION:** The number of games after the end of the bonus service is counted and when it reaches a predetermined value, the further internal winning of the bonus is determined to mark the succession of games and the type of sounds emitted and displayed images are differentiated depending on the frequency of successive winning to allow the players to grasp the ongoing situations easily.



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CLAIMS

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[Claim(s)]

[Claim 1] The fluctuation display means which indicates two or more patterns by fluctuation, and a production activation means to perform production about a game, A role decision means of internal success in an election to determine the role of internal success in an election, and two or more actuation means for stopping the fluctuation display of said fluctuation display means, The halt control means which carries out halt control of the fluctuation display action of said fluctuation display means based on the decision result of said role decision means of internal success in an election, and actuation of said actuation means, the count of a game which carries out counting of the count of a game in order to perform a game specially, after a game is specially completed with a game activation means -- counting -- with a means said count of a game -- counting, when the count of a game by which counting was carried out with the means is a predetermined value and the role of internal success in an election corresponding to a game is specially determined by said role decision means of internal success in an election In the game machine which has a means the count of continuation success in an election which carries out counting of the count judged by special game continuation success-in-an-election judging means to judge with said special game having won continuously, and said special game continuation success-in-an-election judging means to be continuation success in an election -- counting -- said count of continuation success in an election -- counting -- the game machine characterized by having a production mode selection means to choose the production mode performed with said production activation means based on the count of continuation success in an election by which counting was carried out with the means.

[Claim 2] said count of a game -- counting -- the game machine indicated by claim 1 characterized by initializing the count of a game by which counting is carried out with a means a condition [ the role of internal success in an election corresponding to a game having been specially determined by said role decision means of internal success in an election ].

[Claim 3] said count of continuation success in an election -- counting -- the count of continuation success in an election by which counting was carried out with the means -- said count of a game -- counting -- the game machine indicated by claim 1 characterized by making it initialized when the count of a game by which counting is carried out with a means reaches a predetermined value, or 2.

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[Translation done.]

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DETAILED DESCRIPTION

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[Detailed Description of the Invention]

[0001]

[Field of the Invention] This invention relates to the slot machine equipped with the fluctuation display means which indicates the pattern required for a game by fluctuation, and the control means of the microcomputer which controls the fluctuation display, a pachinko machine, and other game machines.

[0002]

[Description of the Prior Art] Conventionally, the slot machine equipped with the earth switch and the so-called pachislot game machine are known as such a game machine. Generally, this pachislot has the electric fluctuation display which displays the pattern on the mechanical fluctuation display which arranged two or more rotation reels which indicate two or more patterns by fluctuation, and constituted them in the front display window, or a reel on a screen, and is performed by arranging predetermined pattern combination with this fluctuation display.

[0003] The game of this pachislot machine is first started by injection of a game person's game media (a medal or coin). And the pattern is indicated by fluctuation by a control means's carrying out drive control of the fluctuation display, and rotating each reel according to start actuation of a game person. The changed pattern carries out a sequential halt of the rotation of each reel by halt actuation of a game person automatically after fixed time amount. When the pattern of each reel which appeared in the display window becomes specific combination (winning-a-prize pattern) at this time, profits are given to a game person by paying out a game medium.

[0004] Such a pachislot game machine has two or more kinds of winning-a-prize modes. Especially when winning a prize of the predetermined role of winning a prize is materialized, it does not finish with one expenditure of a medal, but there are a predetermined period and a thing which will be in the good game condition of conditions from the usual condition. There are a role of winning a prize (a "big bonus" is called and it expresses "BB" below) which can perform the game which gives big profits relatively [ person / game ] as such a role of winning a prize the number of predetermined times, and a role of winning a prize (a "regular bonus" is called and it expresses "RB" below) which can perform the game which gives small profits relatively [ person / game ] the number of predetermined times.

[0005] Moreover, in the pachislot game machine, the combination of the pattern by which a deactivate indication is carried out along validated winning-a-prize Rhine (henceforth "effective Rhine") performs internal lottery processing (henceforth an "internal lottery"), and is determined based on this lottery result and a game person's halt actuation timing. That is, in order to materialize winning a prize which a medal, coin, etc. pay out, it is demanded to the timing the pattern combination win the role of winning a prize by above-mentioned internal lottery processing (henceforth "internal success in an election"), and the winning-a-prize formation of the role of winning a prize (henceforth "the role of internal success in an election") which carried out internal success in an election is shown can be stopped to effective Rhine for a game person to carry out halt actuation. That is, even if it carries out internal success in an election how much, if the timing of halt actuation of a game person is bad, winning a prize cannot be formed. That is, the game machine with which the technique of performing halt actuation with sufficient timing is demanded (the specific gravity of technical intercurrency called "eye push" is high) is the current mainstream.

[0006] When "internal success in an election" is carried out to either of the roles of specific winning a prize whose expenditure number of sheets is two or more kinds of same numbers as an example of such a game machine, As opposed to the period which can be made to make it decrease the number of the medals which a game person possesses a condition [ reporting to which role of specific winning a prize "internal success in an election" was carried out, and

being possible of "eye push" ] or increase, and the same role of internal success in an election The order of push which wins a prize by the order of push of an earth switch, and the order of push which does not win a prize are prepared. The game machine equipped with the function not to decrease the number of the medals which a game person possesses, or to generate the period (for these to be described below to be "halt actuation auxiliary periods") which can be made to make it increase is offered by reporting the order of push which wins a prize.

[0007] Moreover, in such a game machine, after big bonus termination, even if it performs the predetermined number of games, when the next big bonus does not yet carry out internal success in an election, there are some which generate a halt actuation auxiliary period compulsorily as bailout to a game person.

[0008]

[Problem(s) to be Solved by the Invention] However, in the above-mentioned game machine, although the bailout when not winning a bonus was prepared, the addition privilege at the time of continuing a bonus and winning etc. was not established. Moreover, though a certain addition privilege was given to the game person, in the situation that the addition privilege may be given, those by whom there is no way for which a game person gets to know that it is under the situation, and the addition privilege which should be acquired is not acquired may have come out.

[0009] The purpose of this invention is offering a game machine which does not have the unfairness by making a game person's status tracking easy and status tracking being impossible.

[0010]

[Means for Solving the Problem] The fluctuation display means which was made in order that this invention might solve such a technical problem, and indicates two or more patterns by fluctuation, A production activation means to perform production about a game, and a role decision means of internal success in an election to determine the role of internal success in an election, Two or more actuation means for stopping the fluctuation display of said fluctuation display means, The halt control means which carries out halt control of the fluctuation display action of said fluctuation display means based on the decision result of said role decision means of internal success in an election, and actuation of said actuation means, the count of a game which carries out counting of the count of a game in order to perform a game specially, after a game is specially completed with a game activation means -- counting -- with a means said count of a game -- counting, when the count of a game by which counting was carried out with the means is a predetermined value and the role of internal success in an election corresponding to a game is specially determined by said role decision means of internal success in an election In the game machine which has a means the count of continuation success in an election which carries out counting of the count judged by special game continuation success-in-an-election judging means to judge with said special game having won continuously, and said special game continuation success-in-an-election judging means to be continuation success in an election -- counting -- said count of continuation success in an election -- counting -- it is characterized by having a production mode selection means to choose the production mode performed with said production activation means based on the count of continuation success in an election by which counting was carried out with the means.

[0011] According to such a configuration, the situation in which the bonus is carrying out continuation success in an election can be judged, and different production based on the decision can be performed. Here, production includes the production by the sound, the image production by various displays, etc.

[0012] moreover, this invention -- said count of a game -- counting -- it is characterized by initializing the count of a game by which counting is carried out with a means a condition [ the role of internal success in an election corresponding to a game having been specially determined by said role decision means of internal success in an election ]. Since counting of the number of games after bonus termination can be carried out by making the bonus termination back into zero game according to such a configuration, counting of this number of games can be carried out correctly.

[0013] moreover, this invention -- the count of continuation success in an election -- counting -- the count of continuation success in an election by which counting was carried out with the means -- said count of a game -- counting -- when the count of a game by which counting is carried out with a means reaches a predetermined value, it is characterized by making it initialized. According to such a configuration, counting of the count of continuation success in an election can be correctly carried out now.

[0014]

[Embodiment of the Invention] Drawing 1 is the perspective view showing the appearance of the game machine 1 of one example of this invention, and, similarly drawing 2 is the front view of the game machine 1. The game machine 1

is the so-called "pachislot machine." Although this game machine 1 is a game machine which can play a game using game media, such as a card which memorized the information on the game value given or given to the others and game person who is coin, a medal, or a token, below, it is explained as what uses a medal.

[0015] Panel display 2a as an abbreviation vertical plane is formed in the transverse plane of the cabinet 2 which forms the whole game machine 1, and the display windows 4L, 4C, and 4R of a longwise rectangle are formed in the center. Cross down line 8d and cross rise line 8e are horizontally prepared in center line 8a, top-line 8b and bottom line 8c, and the direction of slant as winning-a-prize Rhine at display windows 4L, 4C, and 4R. 1, 3, and 5 are validated, respectively that these winning-a-prize Rhine operates the below-mentioned 1-BET switch 11, the 2-BET switch 12, and the maximum-BET switch 13 or by throwing a medal into medal input port 22. It indicates which winning-a-prize Rhine validated by lighting of the BET lamps 9a, 9b, and 9c explained later.

[0016] Three reels 3L, 3C, and 3R by which the pattern train constituted by each peripheral face with two or more kinds of patterns was drawn are formed in a horizontal single tier free [ rotation ], and form the fluctuation display means in the interior of a cabinet 2. The pattern of each reel can be observed now through display windows 4L, 4C, and 4R. Each reel rotates by fixed-speed rotation (for example, 80 revolutions per minute).

[0017] 1-BET lamp 9a, 2-BET lamp 9b, maximum BET lamp 9c, and the game medal reservoir number-of-sheets display 19 are formed in the left-hand side of display windows 4L, 4C, and 4R. 1-BET lamp 9a, 2-BET lamp 9b, and maximum BET lamp 9c are turned on according to the number of the medals bet in order to perform the game of 1 (henceforth a "BET number"). Here, in this example, the game of 1 is ended, when expenditure of a game medium is performed when all the reels stop or, and a game medium pays out. A BET number turns on 1-BET lamp 9a, when winning-a-prize Rhine of one is validated by "1." A BET number turns on 2-BET lamp 9b, when winning-a-prize Rhine of three is validated by "2." Maximum BET lamp 9c is turned on when winning-a-prize Rhine [ all / a BET number / "3" / (5) ] is validated. A game start identification lamp is turned on when at least one Rhine is validated. The game medal reservoir number-of-sheets display 19 consists of the 7 segment LED, and displays the number of sheets of the medal currently stored.

[0018] The WIN lamp 17, the expenditure display 18, and the game medal injection lamp 24 are formed in the right-hand side of display windows 4L, 4C, and 4R. The WIN lamp 17 is turned on also when the light is switched on by the predetermined probability when internal success in an election is carried out at BB or RB, and winning a prize of BB or RB is materialized. The expenditure display 18 consists of the 7 segment LED, and displays the expenditure number of sheets of the medal at the time of winning-a-prize formation. The game medal injection lamp 24 blinks, when an injection of a game medal can be received.

[0019] The count display 20 of accessory actuation is formed in the right-hand side upper part of panel display 2a. The count display 20 of accessory actuation consists of the 7 segment LED, and displays a count of RB game possible, a count for which a prize can be RB game won which are explained later. The plinth section 10 of a horizontal plane is formed under the display windows 4L, 4C, and 4R, and the liquid crystal display 5 is formed among the plinth section 10 and display windows 4L, 4C, and 4R. When internal success in an election is carried out in the "halt actuation auxiliary period" explained later at "the role of small of a bell", "halt sequence" required in order to realize that winning-a-prize formation is displayed on display screen 5a of this liquid crystal display 5.

[0020] The game deactivate indication machine 31, the re-game drop 32, RB actuation drop 33, and BB actuation drop 34 are formed in the left-hand side upper part location of panel display 2a. The time amount to this rotary drum rotation from the last rotary drum rotation turns on the game deactivate indication machine 31 at the time under of predetermined time amount (an example 4.1 seconds). The re-game drop 32 is turned on when a re-game operates. The light is switched on during RB actuation and RB actuation drop 33 turns on BB actuation drop 34 during BB actuation.

[0021] Medal input port 22 is established in the right-hand side of a liquid crystal display 5, and the 1-BET switch 11, the 2-BET switch 12, and the maximum BET switch 13 are formed in the lower left location of a liquid crystal display 5. Moreover, the cross-joint carbon button 26, the O carbon button 27, and the x carbon button 28 are formed in the upper left location of a liquid crystal display 5.

[0022] One in the medal with which the credit of the 1-BET switch 11 is carried out by one push actuation is risked on a game, two in the medal with which the credit of the 2-BET switch 12 is carried out by one push actuation are risked on a game, and the medal of the maximum number of sheets which can bet the maximum BET switch 13 on 1 time of a game by one push actuation is bet. By operating these BET switches, predetermined winning-a-prize Rhine is validated as above-mentioned.

[0023] And a change and input of display screen 5a can be performed by operating the cross-joint carbon button 26, the O carbon button 27, and the x carbon button 28.

[0024] The reservoir medal settlement-of-accounts switch 14 which changes the credit/expenditure of the medal which the game person won in the game by push button actuation is formed in the left of the front section of the plinth section 10. The medal which the medal paid out of the game medal expenditure opening 15 of the transverse-plane lower part, and was paid out by the change of this reservoir medal settlement-of-accounts switch 14 is accumulated in the game medal receptacle section 16. On the right-hand side of the reservoir medal settlement-of-accounts switch 14, the above-mentioned reel is rotated by actuation of a game person, and the start lever 6 for starting the fluctuation display of the pattern within display windows 4L and 4C and 4R (a game being started) is attached free [ rotation ] in the predetermined include-angle range.

[0025] Door closing motion and close discharge equipment 29 are formed in the rightist inclinations of the front section of the plinth section 10, and this door closing motion and close discharge equipment 29 cancel the close by opening and closing and turning a front door to the left by turning to the right using a predetermined key.

[0026] Loudspeakers 21L and 21R are formed in upper right and left of a cabinet 2, and the dividend table panel 23 which displays the combination of a winning-a-prize pattern, the dividend number of sheets of a medal, etc. is formed in them between two sets of the loudspeakers 21L and 21R. In the center of the front section of the plinth section 10, three earth switches 7L, 7C, and 7R for stopping rotation of three reels 3L, 3C, and 3R, respectively are formed in the lower part location of a liquid crystal display 5.

[0027] Here, the halt actuation performed after "the 2nd halt actuation" and the "2nd halt actuation" in the halt actuation performed to "the 1st halt actuation" and a degree in the halt actuation performed in this example while all reels are rotating is said as "the 3rd halt actuation." Moreover, it is called "order push" to operate left earth-switch 7L as "the 1st halt actuation." It is called "defeat by a wide margin" to operate central earth-switch 7C as "the 1st halt actuation." It is called "reverse push" to operate right earth-switch 7R as "the 1st halt actuation."

[0028] Since three earth switches 7L, 7C, and 7R are formed, "six kinds" of these operational sequences are in the game machine 1 of an example. Then, these operational sequences are distinguished as follows. Right earth-switch 7R is written [ left earth-switch 7L ] for earth-switch 7C of the "left" and a center as the "right" "inside." And when halt sequence is shown, suppose that the abbreviation for each earth switches 7L, 7C, and 7R is arranged from the left in the sequence by which halt actuation was carried out. For example, when right earth-switch 7R is operated as central earth-switch 7C and the "3rd halt actuation" as left earth-switch 7L and the "2nd halt actuation" as "the 1st halt actuation", halt sequence is indicated to be "left Nakamigi." In addition, in order of a halt of an example, there are "six kinds, "inside right and left" "left Nakamigi" and "during right and left", the "Nakamigi left", "the inside of right and left", and "\*\*\*\*\*" "

[0029] Drawing 5 shows the pattern train in which two or more kinds of patterns expressed with each reels 3L, 3C, and 3R were arranged 21 pieces. The code number of "00"- "20" is given to each pattern, and it is stored in ROM32 explained as a data table later. On each reels 3L and 3C and 3R, the pattern train which consists of patterns of "blue 7", "red 7", "BAR", a "bell", a "plum", "Replay (Replay)", and a "cherry" is expressed. The rotation drive of each reels 3L, 3C, and 3R is carried out so that a pattern train may move in the direction of an arrow head.

[0030] The table shown in drawing 6 shows the role of winning a prize and expenditure number of sheets corresponding to the winning-a-prize pattern combination in each game condition.

[0031] The game condition is classified into 3 conditions of a general game condition (it expresses that it is in this condition also as "the inside of a general game"), the game condition in [ general ] BB (it expresses that it is in this condition also as "under BB actuation"), and RB game condition (it expresses that it is in this condition also as "under RB actuation"). Usually, it expresses "under RB actuation" that it is in RB game condition "under BB actuation" about it being in the game condition in [ general ] BB "the inside of a general game" about it being in a general game condition.

[0032] Moreover, although a general game condition may be further classified into BB or RB by whether internal success in an election is carried out, since it is the same about the role of winning a prize which may carry out internal success in an election, the partition in this table has been classified by the tri-state of front Naka.

[0033] In addition, the class of role of winning a prize which may carry out internal success in an election becomes settled on the so-called probability lottery table (about a probability lottery table, it mentions later), and this probability lottery table is prepared for every game condition. That is, in the game of the same game condition, the class of role



which may carry out internal success in an election becomes the same.

[0034] While winning a prize of BB is materialized and the medal of 15 sheets pays out in a general game condition when the "blue 7-blue 7-blue 7" or the "red 7-red 7-red 7" stands in a line along effective Rhine as shown in drawing 6, the game condition of the following game will be in "BB game condition."

[0035] In a "general game condition", it generates, when the combination of the pattern located in a line along effective Rhine is "BAR-BAR-BAR", or when the combination of the pattern located in a line along effective Rhine is "Replay-Replay-Replay" in "the game condition in [ general ] BB" (so-called "JAC IN"), and the medal of 15 sheets pays out "RB game condition." RB which usually begins from RB and "the game condition in [ general ] BB" RB which begins from a "general game condition" may be distinguished from RB in BB.

[0036] "RB game condition" is in the game condition of being easy to hit the accessory with which predetermined pattern combination "Replay-Replay-Replay" can win a set and the medal of 15 sheets, by betting a medal one sheet. In 1 time of "RB game condition", the maximum count of a game (this is called "count of RB game possible") in which a game is possible is 12 times. Moreover, in this RB game condition, the count (this is called "count for which a prize can be RB game won") which can win a prize is to 8 times. That is, this "RB game condition" is ended, when the count of a game amounts to 12 times or the count of winning a prize amounts to 8 times. And after RB game condition is completed, it shifts to a general game condition.

[0037] When 30 game game of the game condition in [ general ] BB is played, 1 time of BB shifts to RB game condition 3 times, and is ended in the place which 3rd RB ended. And after BB game condition is completed, it shifts to a general game condition.

[0038] In a general game condition, when the combination of the pattern located in a line along effective Rhine is "Replay-Replay-Replay", winning a prize of a re-game is materialized. If winning a prize of a re-game is materialized, since the automatic injection of the thrown-in medal of the number of sheets of a medal and the same number will be carried out, a game person can perform a game, without consuming a medal.

[0039] In a general game condition or the game condition in [ general ] BB, when pattern combination "a bell-bell-bell" is located in a line along effective Rhine, winning a prize of "the role of small of a bell" is materialized. When internal success in an election is carried out, it is determined as "the role of small of a bell" by the halt sequence of the below-mentioned table number and a game person's earth switches 7L, 7C, and 7R whether winning a prize is materialized. Only when halt actuation is performed in order of a halt of 1 corresponding to a table number among "six kinds" of halt sequence, specifically, winning a prize of a list and the role of small of a bell is materialized by the "bell-bell-bell" along effective Rhine. When halt actuation is performed by either of "five kinds" of other halt sequence, winning a prize of the role of small of a bell becomes abortive.

[0040] Moreover, although it is possible to realize winning-a-prize formation of "the role of small of a plum", "the role of small of a cherry", etc., etc. in the state of the game in [ general ] a general game condition and BB, the expenditure number of sheets is as illustration.

[0041] "In the state of a general game", when internal success in an election is carried out, the period of "the halt actuation auxiliary period (the below-mentioned AT)" when the "halt sequence" which the winning-a-prize formation will realize is reported is prepared in "the role of small of a bell." When internal success in an election is carried out in this period at "the role of small of a bell", a game person can realize winning-a-prize formation certainly.

[0042] Next, with reference to drawing 7, when internal success in an election is carried out in an auxiliary period at "the role of small of a bell", the image (image which reports halt sequence) displayed on display screen 5a is explained. This drawing 7 is explaining by the case where halt sequence required in order to make a prize win is influencing.

[0043] Drawing 7 (1) shows the image displayed at the time of game initiation. The pattern of a bell is expressed to the viewing area on the left-hand side of an image, and having carried out internal success in an election is shown in "the role of small of a bell." And further, the message "=LEFT= PUSH" of the pattern of this bell was displayed and halt actuation required in order to make a prize win has reported caudad what left earth-switch 7L should be operated for as the 1st halt actuation.

[0044] Drawing 7 (2) shows the image displayed after the 1st halt actuation is performed. The pattern of a bell was expressed to the pattern viewing area on the right-hand side of an image, caudad, it was displayed as "=RIGHT= PUSH" and the thing of the pattern of this bell for which right earth-switch 7R should be operated as the 2nd halt actuation is reported.

[0045] Drawing 7 (3) shows the image displayed after the 2nd halt actuation is performed. The pattern of a bell was



expressed to the pattern viewing area of the center of an image, caudad, it was displayed as "=CENTER= PUSH" and the thing of the pattern of this bell for which central earth-switch 7C should be operated as the 3rd halt actuation is reported. When the 1st and 2nd halt actuation according to the contents of a display of display screen 5a is performed, winning a prize of a list and the role of small of a bell is materialized by the "bell-bell-bell" along effective Rhine after the 3rd halt actuation.

[0046] In addition, although it is made to carry out sequential information of the earth switch which should be operated next in drawing 7 as a mode which reports "halt sequence", you may make it report all "halt sequence" collectively at the time of game initiation. For example, it can also display on display screen 5a like [ "under right and left" ] as "halt sequence."

[0047] Drawing 3 shows circuitry including the main control circuit 81 which controls the game processing actuation in the game machine 1, the peripheral device (actuator) electrically connected to a main control circuit 81, and the sub control circuit 82 which controls a liquid crystal display 5 and Loudspeakers 21L and 21R based on the control command transmitted from a main control circuit 81.

[0048] A main control circuit 81 uses as a main component the microcomputer 40 arranged on the circuit board, adds the circuit for a random-number sampling to this, and is constituted. A microcomputer 40 contains CPU41 which performs control action according to the program set up beforehand, and ROM42 and RAM43 which are a storage means.

[0049] The clock pulse generating circuit 44 and counting-down circuit 45 which generate a criteria clock pulse, the random number generator 46 which generates the random number sampled, and the sampling circuit 47 are connected to CPU41. In addition, as a means for a random-number sampling, you may constitute so that a random-number sampling may be performed within a microcomputer 40 (i.e., on the program of CPU41 of operation). In that case, it is also possible to be able to omit a random number generator 46 and a sampling circuit 47, or to leave as an object for backup of a random-number sampling action.

[0050] The various control commands (command) for transmitting to the halt control table for determining the halt mode of a reel according to actuation of the probability lottery table used for the judgment of the random-number sampling performed whenever it operates the start lever 6 (start actuation), and an earth switch, and the sub control circuit 82 etc. are stored in ROM42 of a microcomputer 40. There are a "demonstration viewing command", a "start command", a "bonus game status-change directive command", "a role command of winning a prize", etc. as this command. These commands are explained later. In addition, the sub control circuit 82 does not input a command, information, etc. into a main control circuit 81, and a communication link is performed in the one direction from the main control circuit 81 to the sub control circuit 82.

[0051] In the circuit of drawing 3, as main actuators with which actuation is controlled by the control signal from a microcomputer 40 Various lamps (1-BET lamp 9a, 2-BET lamp 9b, maximum BET lamp 9c, WIN lamp 17), Various displays (the expenditure display 18, the game medal reservoir number-of-sheets display 19, count display 20 of accessory actuation), A medal is contained and there are the hopper (the mechanical component for expenditure is included) 50 as a game value grant means which pays out the medal of predetermined number of sheets with the instruction of the hopper drive circuit 51, and stepping motors 59L, 59C, and 59R which carry out the rotation drive of the reels 3L, 3C, and 3R.

[0052] Furthermore, the motorised circuit 59 which carries out drive control of the stepping motors 59L, 59C, and 59R, the hopper drive circuit 51 which carries out drive control of the hopper 50, the lamp drive circuit 55 which carries out drive control of the various lamps, and the display drive circuit 58 which carries out drive control of the various displays are connected to the output section of CPU41 through I/O Port 48. These drive circuits control actuation of each actuator in response to control signals, such as a drive command outputted from CPU41, respectively.

[0053] Moreover, as main input signal generating means to generate an input signal required since a microcomputer 40 generates a control command, there are start switch 6S, the 1-BET switch 11, the 2-BET switch 12, the maximum BET switch 13, the reservoir medal settlement-of-accounts switch 14, injection medal sensor 22S, the reel stop signal circuit 56, the reel location detector 60, and a completion signal circuit 61 of expenditure. These are also connected to CPU41 through I/O Port 48.

[0054] Start switch 6S detect actuation of the start lever 6. Injection medal sensor 22S detect the medal thrown into medal input port 22. The reel stop signal circuit 56 generates a stop signal according to actuation of each earth switches 7L, 7C, and 7R. The reel location detector 60 supplies the signal for detecting the location of each reels 3L, 3C, and 3R.

in response to the pulse signal from a reel rotation sensor to CPU41. The completion signal circuit 61 of expenditure generates the signal for detecting the completion of medal expenditure, when the number-of-sheets data with which the enumerated data (number of sheets of the medal paid out of the hopper 50) of medal detecting-element 50S were specified are reached.

[0055] In the circuit of drawing 3, a random number generator 46 generates the random number belonging to the fixed numerical range, and a sampling circuit 47 samples one random number to the proper timing after the start lever 6 was operated. In this way, based on the probability lottery table stored in the sampled random number and ROM42, the role of internal success in an election is determined. After the role of internal success in an election is determined, in order to choose a "halt control table", the sampling of a random number is performed again.

[0056] After rotation of Reels 3L, 3C, and 3R is started, counting of the number of the driving pulses supplied to each of stepping motors 59L, 59C, and 59R is carried out, and the enumerated data are written in the predetermined area of RAM43. A reset pulse is obtained from Reels 3L, 3C, and 3R for every one revolution, and these pulses are inputted into CPU41 through the reel location detector 60. In this way, the enumerated data of the driving pulse by which counting is carried out by RAM43 are cleared by the obtained reset pulse "0." Thereby, in RAM43, the enumerated data corresponding to the rotation location of one revolution within the limits are stored about each reels 3L, 3C, and 3R.

[0057] Since the rotation location of the above reels 3L, 3C, and 3R and the pattern drawn on the reel peripheral face are matched, the pattern table is stored in ROM42. On this pattern table, the code number by which sequential grant is carried out for every fixed rotation pitch of each reels 3L, 3C, and 3R on the basis of the rotation location which the reset pulse mentioned above generates, and the pattern code which shows the pattern established by corresponding for every code number are matched.

[0058] Furthermore, in ROM42, the winning-a-prize pattern combination table is stored. On this winning-a-prize pattern combination table, the combination of the pattern which is winning a prize, the medal dividend number of sheets of winning a prize, and the winning-a-prize judging code showing that winning a prize are matched. The above-mentioned winning-a-prize pattern combination table is referred to when performing the winning-a-prize check the time of halt control of reel 3R of left reel 3L, central reel 3C, and the right, and after [ all ] a reel halt.

[0059] When internal success in an election is carried out by lottery processing (probability lottery processing) based on the above-mentioned random-number sampling, CPU41 sends the signal which carries out halt control of the reels 3L, 3C, and 3R based on the actuation signal sent from the reel stop signal circuit 56, and selected "halt control table" to the timing to which the game person operated earth switches 7L, 7C, and 7R to the motorised circuit 49.

[0060] If it becomes the halt mode which shows the winning-a-prize formation of a role which carried out internal success in an election, CPU41 will supply an expenditure command signal to the hopper drive circuit 51, and will pay the medal of the predetermined number out of a hopper 50. Counting of the number of sheets of the medal which pays medal detecting-element 50S out of a hopper 50 in that case is carried out, and when the number with which the enumerated data were specified is reached, the completion signal of medal expenditure is inputted into CPU41. Thereby, CPU41 stops the drive of a hopper 50 through the hopper drive circuit 51, and ends "expenditure processing of a medal."

[0061] The block diagram of drawing 4 shows the configuration of the sub control circuit 82. The sub control circuit 82 performs the display control of a liquid crystal display 5, and the output control of the sound from Loudspeakers 21L and 21R based on the control command (command) from a main control circuit 81. This sub control circuit 82 is constituted on the circuit board other than the circuit board which constitutes a main control circuit 81, uses a microcomputer (henceforth a "submicrocomputer") 83 as a main component, and consists of a sound source IC 88 which controls the sound \*\*\*\*(ed) by the image control circuit 91 as a display-control means of a liquid crystal display 5, and Loudspeakers 21L and 21R, and power amplification 89 as amplifier.

[0062] The submicrocomputer 83 contains the program ROM 85 and work piece RAM 86 as a storage means with the factice CPU 84 who performs control action according to the control command transmitted from the main control circuit 81. Although it does not have the clock pulse generating circuit, the counting-down circuit, the random number generator, and the sampling circuit, the sub control circuit 82 is constituted so that a random-number sampling may be performed on a factice's CPU 84 program of operation.

[0063] The submicrocomputer 83 equips the predetermined storage region with the count counter of information, the count stock counter of AT, etc. The count counter of information memorizes the count of the remainder of the

information of the order of push in a halt actuation auxiliary period. When the value of this counter is "1 or more", it is a halt actuation auxiliary period. The count stock counter of AT memorizes the information about the count of the remainder which a halt actuation auxiliary period generates.

[0064] A program ROM 85 stores the control program performed as a fictive CPU 84. A work piece RAM 86 is constituted as a temporary storage means when performing the above-mentioned control program as a fictive CPU 84.

[0065] The image control circuit 91 consists of the image control CPU 92, the image control work piece RAM 93, image control program ROM94, an image ROM 96, Video RAM 97, and image control IC 98. The image control CPU 92 determines the contents of a display in a liquid crystal display 5 according to the image control program stored in image control program ROM94 based on the parameter set up with the submicrocomputer 83. Image control program ROM94 stores the image control program and the various selection tables about a display in a liquid crystal display 5. The image control work piece RAM 93 is constituted as a temporary storage means when performing the above-mentioned image control program by the image control CPU 92. The image control IC 98 forms the image according to the contents of a display determined by the image control CPU 92, and outputs it to a liquid crystal display 5. An image ROM 96 stores the dot data for forming an image. Video RAM 97 consists of image control IC 98 as a temporary storage means when forming an image.

[0066] Next, a probability lottery table is explained with reference to drawing 8.

[0067] These probability lottery tables are referred to in probability lottery processing, drawing 8 (a) is used into a general game, and drawing 8 (b) is used into the game in [ general ] BB, and it determines the role of internal success in an election of each game.

[0068] The role of internal success in an election is determined using the numeric value of 1 by which any table is extracted from the numeric value which that random-number range of is 0-16383, and is in this range.

[0069] For example, when the random-number value extracted in the general game is 2851, the role of internal success in an election of this game serves as a "bell." Moreover, when the random-number values extracted in the general game are 11036-16383, the role of internal success in an election of the game serves as "HAZURE."

[0070] Next, with reference to drawing 9 - drawing 13, the halt control table used when internal success in an election is carried out at the role of small of a bell is explained.

[0071] The "halt control table number selection table" shown in drawing 9 determines the table referred to in case halt control of each reels 3L, 3C, and 3R is carried out, when the role of small of a bell carries out internal success in an election. That is, when the role of small of a bell carries out internal success in an election, with reference to any one of six kinds of the halt control tables, halt control is performed based on it.

[0072] Drawing 10 shows the relation between the halt control sequence of each reels 3L, 3C, and 3R in each table chosen by drawing 9, and the formation failure of winning a prize. For example, when the table number chosen on the halt control table number selection table of drawing 9 is the table number 1, if halt sequence is "left Nakamigi", a bell will win a prize. However, if it is the other halt sequence, a bell will win a prize. That is, in order to make a bell win a prize, the role of internal success in an election is a bell, and the halt control sequence of each reels 3L, 3C, and 3R needs to perform halt sequence corresponding to a table number.

[0073] Drawing 11 - drawing 13 explain concrete halt control of each reels 3L, 3C, and 3R in case the role of internal success in an election is a bell.

[0074] The "halt actuated valve position" and a "halt control location" of each reels 3L, 3C, and 3R are shown in the "halt control table." A "halt actuated valve position" expresses the code number of a pattern (pattern with the core specifically nearest to [ the core of a pattern is located above center line 8a, and / center line 8a ] a location) located in center line 8a, when the earth switches 7L, 7C, and 7R prepared corresponding to each reels 3L, 3C, and 3R are operated. A "halt control location" expresses the code number of the pattern by which a deactivate indication is carried out to the location of center line 8a, when the reel by which halt actuation was performed stops. Here, in this example, the so-called "number of slipping coma" is made into maximum "4 coma." For example, when the "cherry" of a code number "12" reaches during rotation of right reel 3R in the location of center line 8a and earth-switch 7R is operated, halt control of the right reel 3R can be carried out so that the deactivate indication of the "blue 7" of a code number "08" may be carried out to the location of center line 8a.

[0075] Drawing 11 shows the halt control table for a hit. After carrying out internal success in an election at "the role of small of a bell", this table is used, in case a "bell-bell-bell" carries out halt control of the reel so that winning a prize of a list and the role of small of a bell may be materialized along effective Rhine.

[0076] In drawing 11, the "halt control location" of left reel 3L is either a code number "03", "08", "11", "15" or "19", and the pattern corresponding to these is a "bell."

[0077] In drawing 11, the "halt control location" of central reel 3C is either a code number "03", "07", "11", "15" or "19", and the pattern corresponding to these is a "bell."

[0078] In drawing 11, the "halt control location" of right reel 3R is either a code number "01", "05", "10", "14" or "18", and the pattern corresponding to these is a "bell."

[0079] As mentioned above, when the halt control table for a hit shown in drawing 11 is used for halt control of each reels 3L, 3C, and 3R, the deactivate indication of the "bell" will be carried out to the location of the center in the location 4L and 4C of center line 8a, i.e., display windows, and 4R, and winning a prize will be materialized.

[0080] In drawing 12, order push and a defeat by a wide margin show the halt control table for a gap. This table is used, in case halt control of the reel is carried out so that a "bell-bell-bell" may not be located in a line with "the role of small of a bell" along effective Rhine (it becomes abortive like [ winning a prize of the role of small of a bell ]), after carrying out internal success in an election. Here, the halt control location to the halt actuated valve position of left reel 3L and central reel 3C is the same as what is shown in drawing 11.

[0081] In drawing 12, the "halt control location" of right reel 3R is either a code number "02", "06", "11", "15" or "19", and the pattern corresponding to these is "Replay."

[0082] As mentioned above, since the deactivate indication of the "bell" is carried out to the location of the center in display window 4L and 4C and the deactivate indication of the "Replay" is carried out to the location of the center in display window 4R when the halt control table for a gap is used for halt control of each reels 3L, 3C, and 3R, it becomes abortive winning [ of the role of small of a bell ] a prize the order push and the defeat by a wide margin shown in drawing 12.

[0083] In drawing 13, reverse push shows the halt control table for a gap. This table is used, in case halt control of the reel is carried out so that a "bell-bell-bell" may not be located in a line with "the role of small of a bell" along effective Rhine (it becomes abortive like [ winning a prize of the role of small of a bell ]), after carrying out internal success in an election. Here, the halt control location to central reel 3C and the halt actuated valve position of right reel 3R is the same as what is shown in drawing 11.

[0084] In drawing 13, the "halt control location" of left reel 3L is either a code number "04", "09", "12", "17" or "20", and the pattern corresponding to these is "Replay."

[0085] As mentioned above, since the deactivate indication of the "Replay" is carried out to the location of the center in left display window 4L and the deactivate indication of the "bell" is carried out to the location of the center in display window 4C and 4R when the halt control table for a gap is used for halt control of each reels 3L, 3C, and 3R, it becomes abortive winning [ of the role of small of a bell ] a prize the reverse push shown in drawing 13.

[0086] Only when "six kinds" is adopted as halt sequence as mentioned above and halt actuation is performed in any 1 sequence according to a table number, he is trying for a list and winning a prize to be materialized by the "bell-bell-bell" along effective Rhine in the example here. For this reason, when the 2nd halt actuation is performed, it may be decided whether a "bell-bell-bell" is located in a line along effective Rhine. For example, it is the case where "1 (the halt sequence of corresponding is "left Nakamigi")" was adopted as a table number, and left reel 3L is operated as the 1st halt actuation. That is, when the 1st halt actuation is performed, it may not necessarily be clear whether a "bell-bell-bell" is located in a line along effective Rhine. Moreover, suppose in the example that a "bell-bell-bell" is surely stood in a line along with center line 8a. So, in the example, as shown in drawing 12 and drawing 13, it is supposed that two halt control tables for blanks are used. In addition, when a table number is "2", "3", "4", "5", or "6", winning a prize of the role of small of a bell is materialized by performing halt actuation respectively by "inside right and left" "during right and left", the "Nakamigi left", "the inside of right and left", or "\*\*\*\*\*."

[0087] Drawing 14 shows an "initiation sound selection table." This random-number range is 0-127. This initiation sound is a sound \*\*\*\*\*(ed) with game initiation, and six kinds are established in all. In this table, an initiation sound is chosen based on the current count of \*\*\*\* (ream Chillan), and the extracted random-number value.

[0088] On this table, from the extracted random-number value, a lottery value is subtracted sequentially from the upper line, and it is made to \*\*\*\* the initiation sound of a line which became negative. for example, when the present count of \*\*\*\* is 3 times and the extracted random-number value is "98", a lottery value "127" subtracts from this "98" first -- having -- "-29" -- it becomes. Since this value becomes negative, the initiation sound in this case turns into the initiation sound 4.

[0089] Drawing 15 shows "the count selection table of AT", and "AT motion lottery table." "The count selection table of AT" is [ 0-4095, and "AT motion lottery table of this random-number range" ] 0-255.

[0090] First, "the count selection table of AT" shown in (a) chooses the count of AT based on the current count of \*\*\*\*, and the extracted random-number value. Although carried out to the count of AT chosen on this table including 0 times, when 0 times is chosen here, AT does not occur, that is, means HAZURE \*\*\*\*\* in the lottery of AT. Moreover, on this table, the count of AT at the time of being easy to win AT (1 time or more being easy to be chosen), and winning it becomes large, so that the count of \*\*\*\* is large. The approach of a lottery is the same as that of an above-mentioned case.

[0091] And "AT motion lottery table" shown in (b) is used when choosing whether this AT1 batch is made to exercise. Here, when motion is chosen, ten count games of information of the order of push of a bell are set. That is, AT starts here. The approach of a lottery is the same as that of \*\*\*\*.

[0092] A command table is explained to drawing 16 and drawing 17. These commands are transmitted to the sub control circuit 82 from a main control circuit 81, and this transmission is only transmission of the one direction from the main control circuit 81 to the sub control circuit 82. It connects with 16 data signal lines and one signal line between the sub control circuits 82 from the main control circuit 81. And these commands have 2 bytes, 4 bytes, or 6-byte composition, and in order to transmit by 16 data signal lines, they are transmitted as one command by 1, 2, or 3 sequences.

[0093] If a start command is explained among these commands, the halt control table number chosen when the classification of the role of internal success in an election, the game condition, and the role of internal success in an election of this game were a bell will be transmitted as one command. The same is said of other commands. Moreover, the command shown in drawing 16 and drawing 17 is the example, and is transmitting information required for the control performed in a sub control circuit besides these.

[0094] Next, the control action of CPU41 of a main control circuit 81 is explained with reference to the Maine flow chart shown in drawing 18 - drawing 24.

[0095] Introduction and a power source are switched on (1 [ step / [it is hereafter displayed as ST] ]), and CPU41 initializes a full power port (ST2). Then, it judges whether it is a power down error (ST3). In a power down error here, it moves to processing of ST2, and when it is not a power down error, it moves to processing of ST4. Initialization of CPU41 is performed in processing of ST4. Then, it judges whether it is a RAM error (ST5). Here, in a RAM error, a RAM error is displayed. Specifically, the display "rr" is performed to the medal expenditure drop constituted by the 7 segment LED. In addition, the fault reading and RAM78 cannot write a RAM error normally is said.

[0096] And in not being a RAM error, it judges whether the key type switch for a setup is "ON" (ST6). When the key type switch for a setup is "ON", after performing six steps of setting processings, it moves to processing of ST12. Moreover, when the key type switch for a setup is "OFF", it moves to processing of ST8. In processing of ST8, it judges whether a battery back-up is normal. When a battery back-up is normal, after clearing the free space of a return address and RAM78, all registers are returned to the output state at the time of power-source cutoff (ST9), and input port is updated in the condition at the time of a power-source return, and it returns to the condition at the time of power-source cutoff (ST10).

[0097] When a battery back-up is not normal, the initial value of the set point is set (ST11). Then, all the fields of RAM78 are cleared (ST12). Here, 12 or less-ST processing is performed also when the key type switch for a setup is "ON" in decision of ST6, and it goes via six steps of setting processings. Then, each set point is stored (ST13) and commo data is initialized (ST14). And CPU41 clears RAM78 at the time of game termination (ST15). Then, it judges whether there is any demand of an automatic injection of a medal (ST16). The case where there is a demand of an automatic injection is a case where winning a prize of a re-game is materialized in a front game. When there is a demand of an automatic injection of a medal, after carrying out the automatic injection of the medal for an injection demand (ST17) and transmitting a game medal injection command to a sub control circuit, it moves to processing of ST20. When there is no demand of an automatic injection of a medal, an injection of the medal from medal input port and a bed carbon button is received (ST19), and it moves to processing of ST20.

[0098] In processing of ST20, a start lever judges whether it is "ON", and when a start lever is "ON", it judges whether 4.1 seconds have passed since the front game (ST21). Specifically based on the value of the 1 game watch-dog timer set by processing of below-mentioned ST24, it judges. When 4.1 seconds have not passed since a front game, the game initiation latency time is digested (ST22), and it moves to processing of ST23.



[0099] In processing of ST23, CPU41 extracts the random number for a lottery. Specifically, a random number is extracted from the range of 0-16383. Then, a 1 game watch-dog timer is set (ST24), and game house keeping processing for judging a current game condition is performed (ST25). Next, probability lottery processing is performed (ST26). In this probability lottery processing, the role of internal success in an election is determined based on the probability lottery table corresponding to the random-number value extracted by processing of ST23, and the current game condition judged by game house keeping processing. The random-number value which serves as internal success in an election for every role of winning a prize is beforehand defined as the probability lottery table was mentioned above.

[0100] Next, CPU41 performs hit pilot-light lighting lottery processing (ST27), and performs halt control table selection processing (the detailed explanation about this halt control table selection processing is mentioned later) (ST28). And a start command is transmitted to a sub control circuit as transmitting processing at the time of game initiation (ST29), and it initializes to reel rotation initiation (ST30).

[0101] Next, it judges whether an earth switch is "ON" (ST31), when an earth switch is "ON", it moves to processing of ST33, and when an earth switch is "OFF", it moves from CPU41 to processing of ST32. In processing of ST32, it judges whether the value of an automatic-stay timer is "0", when the value of an automatic-stay timer is "0", it moves to processing of ST33, and when the value of an automatic-stay timer is not "0", it moves to processing of ST31. In processing of ST33, it slides from a success-in-an-election demand (the role of internal success in an election), the halt control table which (rotation location of the reel at the time of halt actuation), and is chosen, and the number of coma is determined. [ a table etc. ] [ pattern ]

[0102] And a reel is rotated several slipping coma minutes determined by processing of ST33 (ST34). Next, the deactivate request of the reel is set (ST35), and a reel PAUSE command is transmitted to a sub control circuit (ST36).

[0103] and a \*\*\*\*\* [ that all the reels stopped ] -- judging (ST37) -- when all the reels stop, it moves to processing of ST38, and when all reels have not stopped, it moves to processing of ST31. And after performing production processing at the time of game termination (ST38), winning-a-prize retrieval is performed (ST39). Then, it judges whether a winning-a-prize flag is normal (ST40), and when a winning-a-prize flag is normal, it moves to processing of

ST42, and when a winning-a-prize flag is not normal, an illegal error is displayed (ST41) and processing is interrupted.

[0104] In ST42, it judges whether it is the winning-a-prize number of sheets 0. Specifically, it judges whether winning a prize of one of roles (except for a re-game) was materialized. When winning a prize is materialized, a reservoir or expenditure of a medal is performed according to a condition (is [ under / BB actuation / or RB ] it under actuation or not?), and the role of winning a prize (ST43).

[0105] Next, when it judges whether CPU41 is [ BB and RB ] under actuation (ST44) and is [ BB and RB ] under actuation, it moves to processing of ST45, and when it is not [ BB and RB ] under actuation, it moves to processing of ST48. In processing of ST45, the number check processing of BB and RB games is performed, and it judges whether it is at the termination time of BB (ST46). After transmitting BB quit command, at the time of BB termination, the RAM clearance at the time of BB termination is processed (ST47), and it moves from it to processing of ST49. In ST46, when it is not BB termination, it moves to processing of ST49. When it is not [ BB and RB ] under actuation in ST44, BB and RB winning-a-prize check processing (ST48) are performed, and it moves to processing of ST49. In processing of ST49, bonus 7SEG control processing is performed and it moves to processing of ST15.

[0106] Next, the halt control table selection processing performed by ST28 is explained. As for introduction and CPU41, the role of internal success in an election of this game judges that it is a bell (ST50). When the role of internal success in an election of this game is a bell, it moves to processing of ST51, and when the role of internal success in an election of this game is not a bell, it moves to processing of ST52. In processing of ST51, a random-number value is extracted and one halt control table is chosen based on a halt control table selection table. Moreover, in processing of ST52, the halt control table beforehand defined for every role of internal success in an election is chosen.

[0107] Next, with reference to drawing 25 - drawing 32, control processing of the sub control circuit 82 is explained.

[0108] First, drawing 25 explains the outline of processing of a sub control circuit. Introduction and a fictive CPU 84 distinguish whether the game of whether the start command was received and 1 began (ST101). When a start command is received, the number count processing of the games between bonuses (ST102), count count processing of \*\*\*\* (ST103), initiation sound selection processing (ST104), AT lottery processing (ST105), and AT executive operation (ST106) are performed one by one, and it returns to processing of ST101 again after these processings.

[0109] When the start command is not received in ST101, it distinguishes whether one of bonuses was completed in

whether the bonus game status-change directive command was received and this game (ST107). When a bonus game status-change directive command is received, the number of games between bonuses clear processing is performed (ST108), and it returns to processing of ST101 again. Moreover, in ST107, when the bonus game status-change directive command is not received, ST108 is not processed but it returns to processing of ST101.

[0110] Drawing 26 shows the number count processing of the games between bonuses shown in ST102, and the initiation sound selection processing shown in ST104.

[0111] The number count processing of the games between bonuses shown in drawing 26 (a) judges first whether it is among a general game (ST111), and adds it to the number counter of the games between bonuses which is stored in the predetermined field of RAM in a general game one time (ST112). And in not being among a general game, it is making processing return as it is. The game after a bonus is completed can be counted now by performing such processing.

[0112] Moreover, the initiation sound selection processing shown in drawing 26 (b) chooses the initiation sound of this game using the value of the present count counter of \*\*\*\*, and the extracted random-number value based on the initiation sound selection table shown in drawing 14 (ST113). And the selected initiation sound is \*\*\*\*(ed) (ST114).

[0113] Drawing 26 shows the count count processing of \*\*\*\* shown in ST103. In this processing, first, the value of the number counter of the games between bonuses judges whether they are less than 50 games, after a bonus ends that it is 50 or less, i.e., this game, (ST121). Here, when the value of the number counter of the games between bonuses is judged to be 50 or less, it judges whether the bonus carried out internal success in an election in this game (ST122). Here, when a bonus carries out internal success in an election, it adds to the count counter of \*\*\*\* one time (ST123), and processing is returned. And when the value of the number counter of the games between bonuses is not 50 or less, or when the bonus has not carried out internal success in an election in this game, the value of the number counter of the games between bonuses judges that it is 51 (ST124). And when the value of the number counter of the games between bonuses is 51, the value of a \*\*\*\* counter is cleared (ST125), and when the value of the number counter of the games between bonuses is not 51, processing is returned as it is.

[0114] By performing such processing, it is less than the number of games predetermined [ after bonus termination ], and it can judge further that it \*\*\*\*(ed) having carried out internal success in an election on a bonus, and the count which \*\*\*\*(ed) can be further counted now.

[0115] Drawing 28 shows AT lottery processing shown in ST105. By this processing, it judges first whether internal success in an election was carried out to a plum in this game (ST131). Here, when it is judged by the plum that internal success in an election was carried out, based on the count selection table of AT shown in drawing 15 (a), the count of AT is chosen with reference to the value of the present count counter of \*\*\*\*, and the extracted random-number value (ST132). And it adds to AT stock counter in which the selected count of AT is stored to the predetermined field of RAM (133), and processing is returned. When it is judged by the plum by ST131 that internal success in an election has not been carried out, processing is returned as it is.

[0116] Drawing 29 shows the number of games between bonuses clear processing shown in ST108. When RB is usually completed and the game in [ general ] BB is completed first, or when RB which is the 3rd time among BB is completed, the number of the games between bonuses stored in the predetermined field of RAM is cleared (ST144), and he is trying to return processing as it is in this processing, when other.

[0117] Since the number of the games between bonuses is cleared when a certain bonus is completed by performing such processing, the number of games from bonus termination can be counted.

[0118] Drawing 30 shows the executive operation of AT shown in ST106. First, the value of the count counter of information judges that it is one or more (ST201). When the value of the count counter of information is one or more, the order information processing (ST204) of push is performed. And when the value of the count counter of information is not one or more, the value of the count stock counter of AT judges that it is one or more (ST202). When the value of the count stock counter of AT is not one or more, processing is returned, and when the value of the count stock counter of AT is one or more, AT motion lottery processing (ST203) is performed.

[0119] When the value of the above-mentioned count counter of information becomes one or more, it is shown that it is among AT. Moreover, when the value of the count stock counter of AT becomes one or more, it is shown that it is [ AT ] under incubation.

[0120] Drawing 31 shows the order information processing of push shown in ST204. First, the value of the count counter of the order information of push is subtracted one time (ST205). And the role of internal success in an election



of this game judges that it is a bell (ST206). Although processing is returned when the role of internal success in an election of this game is not a bell, when the role of internal success in an election of this game is a bell, the information for making a bell win a prize based on the halt control table number chosen is reported (ST207), and processing is returned.

[0121] Drawing 32 shows AT motion lottery processing shown in ST203. First, a random-number lottery is performed based on AT motion lottery table (ST208). As a result of this lottery, it judges whether motion was won or not (ST209), when motion is not won, processing is returned, when motion is won, the value of 10 is added to the count counter of the order information of push (ST210), and it subtracts from the value of the count stock counter of AT one time (ST211), and processing is returned.

[0122] As mentioned above, although the example was explained, this invention is not restricted to this. In the example, although explanation of production was explained using the initiation sound, you may carry out to other various sounds and it may be made to perform image production not only by a sound but the liquid crystal display etc.

[0123] Moreover, the timing extraction of a random-number value which refers to the table shown in the example can be performed to the timing of arbitration.

[0124] Moreover, although the order of push was reported to that it is decided by the difference in the order of push as a AT that the success or failure of winning a prize will be, you may make it adopt AT which reports the role of internal success in an election in addition to this. Furthermore, as a situation advantageous to a game person, if many game media can be gained, BB, RB, etc. are employable in addition to AT.

[0125] Furthermore, it is applicable to other game machines, such as a pachinko game machine besides a slot machine like this example. Furthermore, it can apply also to a game program which uses actuation of such a game machine as home video game machines, and performs it in false, and a game can be performed. In that case, the record medium of arbitration can be used for the record medium which records a game program for CD-ROM, FD (flexible disk), etc.

[0126]

[Effect of the Invention] As mentioned above, as explained, according to this invention, the number of games after bonus termination is counted, and it judges that the case where a bonus carries out internal success in an election further when the value is a predetermined value is \*\*\*\*, and it becomes as [ perform / a game person's status tracking / since it was made for the class of sound \*\*\*\*(ed) by the count of \*\*\*\* to differ from the image displayed / easily ]. And further, by the count of \*\*\*\*, when it is made for the expected value of the success-in-an-election probability of AT and the count of AT at the time of winning AT to change, a privilege not becoming unequal and additional can be given.

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TECHNICAL FIELD

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[Field of the Invention] This invention relates to the slot machine equipped with the fluctuation display means which indicates the pattern required for a game by fluctuation, and the control means of the microcomputer which controls the fluctuation display, a pachinko machine, and other game machines.

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**PRIOR ART**

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[Description of the Prior Art] Conventionally, the slot machine equipped with the earth switch and the so-called pachislot game machine are known as such a game machine. Generally, this pachislot has the electric fluctuation display which displays the pattern on the mechanical fluctuation display which arranged two or more rotation reels which indicate two or more patterns by fluctuation, and constituted them in the front display window, or a reel on a screen, and is performed by arranging predetermined pattern combination with this fluctuation display.

[0003] The game of this pachislot machine is first started by injection of a game person's game media (a medal or coin). And the pattern is indicated by fluctuation by a control means's carrying out drive control of the fluctuation display, and rotating each reel according to start actuation of a game person. The changed pattern carries out a sequential halt of the rotation of each reel by halt actuation of a game person automatically after fixed time amount. When the pattern of each reel which appeared in the display window becomes specific combination (winning-a-prize pattern) at this time, profits are given to a game person by paying out a game medium.

[0004] Such a pachislot game machine has two or more kinds of winning-a-prize modes. Especially when winning a prize of the predetermined role of winning a prize is materialized, it does not finish with one expenditure of a medal, but there are a predetermined period and a thing which will be in the good game condition of conditions from the usual condition. There are a role of winning a prize (a "big bonus" is called and it expresses "BB" below) which can perform the game which gives big profits relatively [ person / game ] as such a role of winning a prize the number of predetermined times, and a role of winning a prize (a "regular bonus" is called and it expresses "RB" below) which can perform the game which gives small profits relatively [ person / game ] the number of predetermined times.

[0005] Moreover, in the pachislot game machine, the combination of the pattern by which a deactivate indication is carried out along validated winning-a-prize Rhine (henceforth "effective Rhine") performs internal lottery processing (henceforth an "internal lottery"), and is determined based on this lottery result and a game person's halt actuation timing. That is, in order to materialize winning a prize which a medal, coin, etc. pay out, it is demanded to the timing the pattern combination win the role of winning a prize by above-mentioned internal lottery processing (henceforth "internal success in an election"), and the winning-a-prize formation of the role of winning a prize (henceforth "the role of internal success in an election") which carried out internal success in an election is shown can be stopped to effective Rhine for a game person to carry out halt actuation. That is, even if it carries out internal success in an election how much, if the timing of halt actuation of a game person is bad, winning a prize cannot be formed. That is, the game machine with which the technique of performing halt actuation with sufficient timing is demanded (the specific gravity of technical intercurrent called "eye push" is high) is the current mainstream.

[0006] When "internal success in an election" is carried out to either of the roles of specific winning a prize whose expenditure number of sheets is two or more kinds of same numbers as an example of such a game machine, As opposed to the period which can be made to make it decrease the number of the medals which a game person possesses a condition [ reporting to which role of specific winning a prize "internal success in an election" was carried out, and being possible of "eye push" ] or increase, and the same role of internal success in an election The order of push which wins a prize by the order of push of an earth switch, and the order of push which does not win a prize are prepared. The game machine equipped with the function not to decrease the number of the medals which a game person possesses, or to generate the period (for these to be described below to be "halt actuation auxiliary periods") which can be made to make it increase is offered by reporting the order of push which wins a prize.

[0007] Moreover, in such a game machine, after big bonus termination, even if it performs the predetermined number

of games, when the next big bonus does not yet carry out internal success in an election, there are some which generate a halt actuation auxiliary period compulsorily as bailout to a game person.  
[0008]

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EFFECT OF THE INVENTION

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[Effect of the Invention] As mentioned above, as explained, according to this invention, the number of games after bonus termination is counted, and it judges that the case where a bonus carries out internal success in an election further when the value is a predetermined value is \*\*\*\*, and it becomes as [ perform / a game person's status tracking / since it was made for the class of sound \*\*\*\*(ed) by the count of \*\*\*\* to differ from the image displayed / easily ]. And further, by the count of \*\*\*\*, when it is made for the expected value of the success-in-an-election probability of AT and the count of AT at the time of winning AT to change, a privilege not becoming unequal and additional can be given.

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TECHNICAL PROBLEM

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[Problem(s) to be Solved by the Invention] However, in the above-mentioned game machine, although the bailout when not winning a bonus was prepared, the addition privilege at the time of continuing a bonus and winning etc. was not established. Moreover, though a certain addition privilege was given to the game person, in the situation that the addition privilege may be given, those by whom there is no way for which a game person gets to know that it is under the situation, and the addition privilege which should be acquired is not acquired may have come out.

[0009] The purpose of this invention is offering a game machine which does not have the unfairness by making a game person's status tracking easy and status tracking being impossible.

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MEANS

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[Means for Solving the Problem] The fluctuation display means which was made in order that this invention might solve such a technical problem, and indicates two or more patterns by fluctuation, A production activation means to perform production about a game, and a role decision means of internal success in an election to determine the role of internal success in an election, Two or more actuation means for stopping the fluctuation display of said fluctuation display means, The halt control means which carries out halt control of the fluctuation display action of said fluctuation display means based on the decision result of said role decision means of internal success in an election, and actuation of said actuation means, the count of a game which carries out counting of the count of a game in order to perform a game specially, after a game is specially completed with a game activation means -- counting -- with a means said count of a game -- counting, when the count of a game by which counting was carried out with the means is a predetermined value and the role of internal success in an election corresponding to a game is specially determined by said role decision means of internal success in an election In the game machine which has a means the count of continuation success in an election which carries out counting of the count judged by special game continuation success-in-an-election judging means to judge with said special game having won continuously, and said special game continuation success-in-an-election judging means to be continuation success in an election -- counting -- said count of continuation success in an election -- counting -- it is characterized by having a production mode selection means to choose the production mode performed with said production activation means based on the count of continuation success in an election by which counting was carried out with the means.

[0011] According to such a configuration, the situation in which the bonus is carrying out continuation success in an election can be judged, and different production based on the decision can be performed. Here, production includes the production by the sound, the image production by various displays, etc.

[0012] moreover, this invention -- said count of a game -- counting -- it is characterized by initializing the count of a game by which counting is carried out with a means a condition [ the role of internal success in an election corresponding to a game having been specially determined by said role decision means of internal success in an election ]. Since counting of the number of games after bonus termination can be carried out by making the bonus termination back into zero game according to such a configuration, counting of this number of games can be carried out correctly.

[0013] moreover, this invention -- the count of continuation success in an election -- counting -- the count of continuation success in an election by which counting was carried out with the means -- said count of a game -- counting -- when the count of a game by which counting is carried out with a means reaches a predetermined value, it is characterized by making it initialized. According to such a configuration, counting of the count of continuation success in an election can be correctly carried out now.

[0014]

[Embodiment of the Invention] Drawing 1 is the perspective view showing the appearance of the game machine 1 of one example of this invention, and, similarly drawing 2 is the front view of the game machine 1. The game machine 1 is the so-called "pachislot machine." Although this game machine 1 is a game machine which can play a game using game media, such as a card which memorized the information on the game value given or given to the others and game person who is coin, a medal, or a token, below, it is explained as what uses a medal.

[0015] Panel display 2a as an abbreviation vertical plane is formed in the transverse plane of the cabinet 2 which forms the whole game machine 1, and the display windows 4L, 4C, and 4R of a longwise rectangle are formed in the center.



Cross down line 8d and cross rise line 8e are horizontally prepared in center line 8a, top-line 8b and bottom line 8c, and the direction of slant as winning-a-prize Rhine at display windows 4L, 4C, and 4R. 1, 3, and 5 are validated, respectively that these winning-a-prize Rhine operates the below-mentioned 1-BET switch 11, the 2-BET switch 12, and the maximum-BET switch 13 or by throwing a medal into medal input port 22. It indicates which winning-a-prize Rhine validated by lighting of the BET lamps 9a, 9b, and 9c explained later.

[0016] Three reels 3L, 3C, and 3R by which the pattern train constituted by each peripheral face with two or more kinds of patterns was drawn are formed in a horizontal single tier free [ rotation ], and form the fluctuation display means in the interior of a cabinet 2. The pattern of each reel can be observed now through display windows 4L, 4C, and 4R. Each reel rotates by fixed-speed rotation (for example, 80 revolutions per minute).

[0017] 1-BET lamp 9a, 2-BET lamp 9b, maximum BET lamp 9c, and the game medal reservoir number-of-sheets display 19 are formed in the left-hand side of display windows 4L, 4C, and 4R. 1-BET lamp 9a, 2-BET lamp 9b, and maximum BET lamp 9c are turned on according to the number of the medals bet in order to perform the game of 1 (henceforth a "BET number"). Here, in this example, the game of 1 is ended, when expenditure of a game medium is performed when all the reels stop or, and a game medium pays out. A BET number turns on 1-BET lamp 9a, when winning-a-prize Rhine of one is validated by "1." A BET number turns on 2-BET lamp 9b, when winning-a-prize Rhine of three is validated by "2." Maximum BET lamp 9c is turned on when winning-a-prize Rhine [ all / a BET number / "3" / (5) ] is validated. A game start identification lamp is turned on when at least one Rhine is validated. The game medal reservoir number-of-sheets display 19 consists of the 7 segment LED, and displays the number of sheets of the medal currently stored.

[0018] The WIN lamp 17, the expenditure display 18, and the game medal injection lamp 24 are formed in the right-hand side of display windows 4L, 4C, and 4R. The WIN lamp 17 is turned on also when the light is switched on by the predetermined probability when internal success in an election is carried out at BB or RB, and winning a prize of BB or RB is materialized. The expenditure display 18 consists of the 7 segment LED, and displays the expenditure number of sheets of the medal at the time of winning-a-prize formation. The game medal injection lamp 24 blinks, when an injection of a game medal can be received.

[0019] The count display 20 of accessory actuation is formed in the right-hand side upper part of panel display 2a. The count display 20 of accessory actuation consists of the 7 segment LED, and displays a count of RB game possible, a count for which a prize can be RB game won which are explained later. The plinth section 10 of a horizontal plane is formed under the display windows 4L, 4C, and 4R, and the liquid crystal display 5 is formed among the plinth section 10 and display windows 4L, 4C, and 4R. When internal success in an election is carried out in the "halt actuation auxiliary period" explained later at "the role of small of a bell", "halt sequence" required in order to realize that winning-a-prize formation is displayed on display screen 5a of this liquid crystal display 5.

[0020] The game deactivate indication machine 31, the re-game drop 32, RB actuation drop 33, and BB actuation drop 34 are formed in the left-hand side upper part location of panel display 2a. The time amount to this rotary drum rotation from the last rotary drum rotation turns on the game deactivate indication machine 31 at the time under of predetermined time amount (an example 4.1 seconds). The re-game drop 32 is turned on when a re-game operates. The light is switched on during RB actuation and RB actuation drop 33 turns on BB actuation drop 34 during BB actuation.

[0021] Medal input port 22 is established in the right-hand side of a liquid crystal display 5, and the 1-BET switch 11, the 2-BET switch 12, and the maximum BET switch 13 are formed in the lower left location of a liquid crystal display 5. Moreover, the cross-joint carbon button 26, the O carbon button 27, and the x carbon button 28 are formed in the upper left location of a liquid crystal display 5.

[0022] One in the medal with which the credit of the 1-BET switch 11 is carried out by one push actuation is risked on a game, two in the medal with which the credit of the 2-BET switch 12 is carried out by one push actuation are risked on a game, and the medal of the maximum number of sheets which can bet the maximum BET switch 13 on 1 time of a game by one push actuation is bet. By operating these BET switches, predetermined winning-a-prize Rhine is validated as above-mentioned.

[0023] And a change and input of display screen 5a can be performed by operating the cross-joint carbon button 26, the O carbon button 27, and the x carbon button 28.

[0024] The reservoir medal settlement-of-accounts switch 14 which changes the credit/expenditure of the medal which the game person won in the game by push button actuation is formed in the left of the front section of the plinth section 10. The medal which the medal paid out of the game medal expenditure opening 15 of the transverse-plane lower part,

and was paid out by the change of this reservoir medal settlement-of-accounts switch 14 is accumulated in the game medal receptacle section 16. On the right-hand side of the reservoir medal settlement-of-accounts switch 14, the above-mentioned reel is rotated by actuation of a game person, and the start lever 6 for starting the fluctuation display of the pattern within display windows 4L and 4C and 4R (a game being started) is attached free [ rotation ] in the predetermined include-angle range.

[0025] Door closing motion and close discharge equipment 29 are formed in the rightist inclinations of the front section of the plinth section 10, and this door closing motion and close discharge equipment 29 cancel the close by opening and closing and turning a front door to the left by turning to the right using a predetermined key.

[0026] Loudspeakers 21L and 21R are formed in upper right and left of a cabinet 2, and the dividend table panel 23 which displays the combination of a winning-a-prize pattern, the dividend number of sheets of a medal, etc. is formed in them between two sets of the loudspeakers 21L and 21R. In the center of the front section of the plinth section 10, three earth switches 7L, 7C, and 7R for stopping rotation of three reels 3L, 3C, and 3R, respectively are formed in the lower part location of a liquid crystal display 5.

[0027] Here, the halt actuation performed after "the 2nd halt actuation" and the "2nd halt actuation" in the halt actuation performed to "the 1st halt actuation" and a degree in the halt actuation performed in this example while all reels are rotating is said as "the 3rd halt actuation." Moreover, it is called "order push" to operate left earth-switch 7L as "the 1st halt actuation." It is called "defeat by a wide margin" to operate central earth-switch 7C as "the 1st halt actuation." It is called "reverse push" to operate right earth-switch 7R as "the 1st halt actuation."

[0028] Since three earth switches 7L, 7C, and 7R are formed, "six kinds" of these operational sequences are in the game machine 1 of an example. Then, these operational sequences are distinguished as follows. Right earth-switch 7R is written [ left earth-switch 7L ] for earth-switch 7C of the "left" and a center as the "right" "inside." And when halt sequence is shown, suppose that the abbreviation for each earth switches 7L, 7C, and 7R is arranged from the left in the sequence by which halt actuation was carried out. For example, when right earth-switch 7R is operated as central earth-switch 7C and the "3rd halt actuation" as left earth-switch 7L and the "2nd halt actuation" as "the 1st halt actuation", halt sequence is indicated to be "left Nakamigi." In addition, in order of a halt of an example, there are "six kinds, "inside right and left" "left Nakamigi" and "during right and left", the "Nakamigi left", "the inside of right and left", and "\*\*\*\*\*", "

[0029] Drawing 5 shows the pattern train in which two or more kinds of patterns expressed with each reels 3L, 3C, and 3R were arranged 21 pieces. The code number of "00"- "20" is given to each pattern, and it is stored in ROM32 explained as a data table later. On each reels 3L and 3C and 3R, the pattern train which consists of patterns of "blue 7", "red 7", "BAR", a "bell", a "plum", "Replay (Replay)", and a "cherry" is expressed. The rotation drive of each reels 3L, 3C, and 3R is carried out so that a pattern train may move in the direction of an arrow head.

[0030] The table shown in drawing 6 shows the role of winning a prize and expenditure number of sheets corresponding to the winning-a-prize pattern combination in each game condition.

[0031] The game condition is classified into 3 conditions of a general game condition (it expresses that it is in this condition also as "the inside of a general game"), the game condition in [ general ] BB (it expresses that it is in this condition also as "under BB actuation"), and RB game condition (it expresses that it is in this condition also as "under RB actuation"). Usually, it expresses "under RB actuation" that it is in RB game condition "under BB actuation" about it being in the game condition in [ general ] BB "the inside of a general game" about it being in a general game condition.

[0032] Moreover, although a general game condition may be further classified into BB or RB by whether internal success in an election is carried out, since it is the same about the role of winning a prize which may carry out internal success in an election, the partition in this table has been classified by the tri-state of front Naka.

[0033] In addition, the class of role of winning a prize which may carry out internal success in an election becomes settled on the so-called probability lottery table (about a probability lottery table, it mentions later), and this probability lottery table is prepared for every game condition. That is, in the game of the same game condition, the class of role which may carry out internal success in an election becomes the same.

[0034] While winning a prize of BB is materialized and the medal of 15 sheets pays out in a general game condition when the "blue 7-blue 7-blue 7" or the "red 7-red 7-red 7" stands in a line along effective Rhine as shown in drawing 6 , the game condition of the following game will be in "BB game condition."

[0035] In a "general game condition", it generates, when the combination of the pattern located in a line along effective

Rhine is "BAR-BAR-BAR", or when the combination of the pattern located in a line along effective Rhine is "Replay-Replay-Replay" in "the game condition in [ general ] BB" (so-called "JAC IN"), and the medal of 15 sheets pays out "RB game condition." RB which usually begins from RB and "the game condition in [ general ] BB" RB which begins from a "general game condition" may be distinguished from RB in BB.

[0036] "RB game condition" is in the game condition of being easy to hit the accessory with which predetermined pattern combination "Replay-Replay-Replay" can win a set and the medal of 15 sheets, by betting a medal one sheet. In 1 time of "RB game condition", the maximum count of a game (this is called "count of RB game possible") in which a game is possible is 12 times. Moreover, in this RB game condition, the count (this is called "count for which a prize can be RB game won") which can win a prize is to 8 times. That is, this "RB game condition" is ended, when the count of a game amounts to 12 times or the count of winning a prize amounts to 8 times. And after RB game condition is completed, it shifts to a general game condition.

[0037] When 30 game game of the game condition in [ general ] BB is played, 1 time of BB shifts to RB game condition 3 times, and is ended in the place which 3rd RB ended. And after BB game condition is completed, it shifts to a general game condition.

[0038] In a general game condition, when the combination of the pattern located in a line along effective Rhine is "Replay-Replay-Replay", winning a prize of a re-game is materialized. If winning a prize of a re-game is materialized, since the automatic injection of the thrown-in medal of the number of sheets of a medal and the same number will be carried out, a game person can perform a game, without consuming a medal.

[0039] In a general game condition or the game condition in [ general ] BB, when pattern combination "a bell-bell-bell" is located in a line along effective Rhine, winning a prize of "the role of small of a bell" is materialized. When internal success in an election is carried out, it is determined as "the role of small of a bell" by the halt sequence of the below-mentioned table number and a game person's earth switches 7L, 7C, and 7R whether winning a prize is materialized. Only when halt actuation is performed in order of a halt of 1 corresponding to a table number among "six kinds" of halt sequence, specifically, winning a prize of a list and the role of small of a bell is materialized by the "bell-bell-bell" along effective Rhine. When halt actuation is performed by either of "five kinds" of other halt sequence, winning a prize of the role of small of a bell becomes abortive.

[0040] Moreover, although it is possible to realize winning-a-prize formation of "the role of small of a plum", "the role of small of a cherry", etc., etc. in the state of the game in [ general ] a general game condition and BB, the expenditure number of sheets is as illustration.

[0041] "In the state of a general game", when internal success in an election is carried out, the period of "the halt actuation auxiliary period (the below-mentioned AT)" when the "halt sequence" which the winning-a-prize formation will realize is reported is prepared in "the role of small of a bell." When internal success in an election is carried out in this period at "the role of small of a bell", a game person can realize winning-a-prize formation certainly.

[0042] Next, with reference to drawing 7, when internal success in an election is carried out in an auxiliary period at "the role of small of a bell", the image (image which reports halt sequence) displayed on display screen 5a is explained. This drawing 7 is explaining by the case where halt sequence required in order to make a prize win is influencing.

[0043] Drawing 7 (1) shows the image displayed at the time of game initiation. The pattern of a bell is expressed to the viewing area on the left-hand side of an image, and having carried out internal success in an election is shown in "the role of small of a bell." And further, the message "=LEFT= PUSH" of the pattern of this bell was displayed and halt actuation required in order to make a prize win has reported caudad what left earth-switch 7L should be operated for as the 1st halt actuation.

[0044] Drawing 7 (2) shows the image displayed after the 1st halt actuation is performed. The pattern of a bell was expressed to the pattern viewing area on the right-hand side of an image, caudad, it was displayed as "=RIGHT= PUSH" and the thing of the pattern of this bell for which right earth-switch 7R should be operated as the 2nd halt actuation is reported.

[0045] Drawing 7 (3) shows the image displayed after the 2nd halt actuation is performed. The pattern of a bell was expressed to the pattern viewing area of the center of an image, caudad, it was displayed as "=CENTER= PUSH" and the thing of the pattern of this bell for which central earth-switch 7C should be operated as the 3rd halt actuation is reported. When the 1st and 2nd halt actuation according to the contents of a display of display screen 5a is performed, winning a prize of a list and the role of small of a bell is materialized by the "bell-bell-bell" along effective Rhine after the 3rd halt actuation.

[0046] In addition, although it is made to carry out sequential information of the earth switch which should be operated next in drawing 7 as a mode which reports "halt sequence", you may make it report all "halt sequence" collectively at the time of game initiation. For example, it can also display on display screen 5a like [ "under right and left" ] as "halt sequence."

[0047] Drawing 3 shows circuitry including the main control circuit 81 which controls the game processing actuation in the game machine 1, the peripheral device (actuator) electrically connected to a main control circuit 81, and the sub control circuit 82 which controls a liquid crystal display 5 and Loudspeakers 21L and 21R based on the control command transmitted from a main control circuit 81.

[0048] A main control circuit 81 uses as a main component the microcomputer 40 arranged on the circuit board, adds the circuit for a random-number sampling to this, and is constituted. A microcomputer 40 contains CPU41 which performs control action according to the program set up beforehand, and ROM42 and RAM43 which are a storage means.

[0049] The clock pulse generating circuit 44 and counting-down circuit 45 which generate a criteria clock pulse, the random number generator 46 which generates the random number sampled, and the sampling circuit 47 are connected to CPU41. In addition, as a means for a random-number sampling, you may constitute so that a random-number sampling may be performed within a microcomputer 40 (i.e., on the program of CPU41 of operation). In that case, it is also possible to be able to omit a random number generator 46 and a sampling circuit 47, or to leave as an object for backup of a random-number sampling action.

[0050] The various control commands (command) for transmitting to the halt control table for determining the halt mode of a reel according to actuation of the probability lottery table used for the judgment of the random-number sampling performed whenever it operates the start lever 6 (start actuation), and an earth switch, and the sub control circuit 82 etc. are stored in ROM42 of a microcomputer 40. There are a "demonstration viewing command", a "start command", a "bonus game status-change directive command", "a role command of winning a prize", etc. as this command. These commands are explained later. In addition, the sub control circuit 82 does not input a command, information, etc. into a main control circuit 81, and a communication link is performed in the one direction from the main control circuit 81 to the sub control circuit 82.

[0051] In the circuit of drawing 3, as main actuators with which actuation is controlled by the control signal from a microcomputer 40 Various lamps (1-BET lamp 9a, 2-BET lamp 9b, maximum BET lamp 9c, WIN lamp 17), Various displays (the expenditure display 18, the game medal reservoir number-of-sheets display 19, count display 20 of accessory actuation), A medal is contained and there are the hopper (the mechanical component for expenditure is included) 50 as a game value grant means which pays out the medal of predetermined number of sheets with the instruction of the hopper drive circuit 51, and stepping motors 59L, 59C, and 59R which carry out the rotation drive of the reels 3L, 3C, and 3R.

[0052] Furthermore, the motorised circuit 59 which carries out drive control of the stepping motors 59L, 59C, and 59R, the hopper drive circuit 51 which carries out drive control of the hopper 50, the lamp drive circuit 55 which carries out drive control of the various lamps, and the display drive circuit 58 which carries out drive control of the various displays are connected to the output section of CPU41 through I/O Port 48. These drive circuits control actuation of each actuator in response to control signals, such as a drive command outputted from CPU41, respectively.

[0053] Moreover, as main input signal generating means to generate an input signal required since a microcomputer 40 generates a control command, there are start switch 6S, the 1-BET switch 11, the 2-BET switch 12, the maximum BET switch 13, the reservoir medal settlement-of-accounts switch 14, injection medal sensor 22S, the reel stop signal circuit 56, the reel location detector 60, and a completion signal circuit 61 of expenditure. These are also connected to CPU41 through I/O Port 48.

[0054] Start switch 6S detect actuation of the start lever 6. Injection medal sensor 22S detect the medal thrown into medal input port 22. The reel stop signal circuit 56 generates a stop signal according to actuation of each earth switches 7L, 7C, and 7R. The reel location detector 60 supplies the signal for detecting the location of each reels 3L, 3C, and 3R in response to the pulse signal from a reel rotation sensor to CPU41. The completion signal circuit 61 of expenditure generates the signal for detecting the completion of medal expenditure, when the number-of-sheets data with which the enumerated data (number of sheets of the medal paid out of the hopper 50) of medal detecting-element 50S were specified are reached.

[0055] In the circuit of drawing 3, a random number generator 46 generates the random number belonging to the fixed

numerical range, and a sampling circuit 47 samples one random number to the proper timing after the start lever 6 was operated. In this way, based on the probability lottery table stored in the sampled random number and ROM42, the role of internal success in an election is determined. After the role of internal success in an election is determined, in order to choose a "halt control table", the sampling of a random number is performed again.

[0056] After rotation of Reels 3L, 3C, and 3R is started, counting of the number of the driving pulses supplied to each of stepping motors 59L, 59C, and 59R is carried out, and the enumerated data are written in the predetermined area of RAM43. A reset pulse is obtained from Reels 3L, 3C, and 3R for every one revolution, and these pulses are inputted into CPU41 through the reel location detector 60. In this way, the enumerated data of the driving pulse by which counting is carried out by RAM43 are cleared by the obtained reset pulse "0." Thereby, in RAM43, the enumerated data corresponding to the rotation location of one revolution within the limits are stored about each reels 3L, 3C, and 3R.

[0057] Since the rotation location of the above reels 3L, 3C, and 3R and the pattern drawn on the reel peripheral face are matched, the pattern table is stored in ROM42. On this pattern table, the code number by which sequential grant is carried out for every fixed rotation pitch of each reels 3L, 3C, and 3R on the basis of the rotation location which the reset pulse mentioned above generates, and the pattern code which shows the pattern established by corresponding for every code number are matched.

[0058] Furthermore, in ROM42, the winning-a-prize pattern combination table is stored. On this winning-a-prize pattern combination table, the combination of the pattern which is winning a prize, the medal dividend number of sheets of winning a prize, and the winning-a-prize judging code showing that winning a prize are matched. The above-mentioned winning-a-prize pattern combination table is referred to when performing the winning-a-prize check the time of halt control of reel 3R of left reel 3L, central reel 3C, and the right, and after [ all ] a reel halt.

[0059] When internal success in an election is carried out by lottery processing (probability lottery processing) based on the above-mentioned random-number sampling, CPU41 sends the signal which carries out halt control of the reels 3L, 3C, and 3R based on the actuation signal sent from the reel stop signal circuit 56, and selected "halt control table" to the timing to which the game person operated earth switches 7L, 7C, and 7R to the motorised circuit 49.

[0060] If it becomes the halt mode which shows the winning-a-prize formation of a role which carried out internal success in an election, CPU41 will supply an expenditure command signal to the hopper drive circuit 51, and will pay the medal of the predetermined number out of a hopper 50. Counting of the number of sheets of the medal which pays medal detecting-element 50S out of a hopper 50 in that case is carried out, and when the number with which the enumerated data were specified is reached, the completion signal of medal expenditure is inputted into CPU41. Thereby, CPU41 stops the drive of a hopper 50 through the hopper drive circuit 51, and ends "expenditure processing of a medal."

[0061] The block diagram of drawing 4 shows the configuration of the sub control circuit 82. The sub control circuit 82 performs the display control of a liquid crystal display 5, and the output control of the sound from Loudspeakers 21L and 21R based on the control command (command) from a main control circuit 81. This sub control circuit 82 is constituted on the circuit board other than the circuit board which constitutes a main control circuit 81, uses a microcomputer (henceforth a "submicrocomputer") 83 as a main component, and consists of a sound source IC 88 which controls the sound \*\*\*\*(ed) by the image control circuit 91 as a display-control means of a liquid crystal display 5, and Loudspeakers 21L and 21R, and power amplification 89 as amplifier.

[0062] The submicrocomputer 83 contains the program ROM 85 and work piece RAM 86 as a storage means with the factice CPU 84 who performs control action according to the control command transmitted from the main control circuit 81. Although it does not have the clock pulse generating circuit, the counting-down circuit, the random number generator, and the sampling circuit, the sub control circuit 82 is constituted so that a random-number sampling may be performed on a factice's CPU 84 program of operation.

[0063] The submicrocomputer 83 equips the predetermined storage region with the count counter of information, the count stock counter of AT, etc. The count counter of information memorizes the count of the remainder of the information of the order of push in a halt actuation auxiliary period. When the value of this counter is "1 or more", it is a halt actuation auxiliary period. The count stock counter of AT memorizes the information about the count of the remainder which a halt actuation auxiliary period generates.

[0064] A program ROM 85 stores the control program performed as a factice CPU 84. A work piece RAM 86 is constituted as a temporary storage means when performing the above-mentioned control program as a factice CPU 84.



[0065] The image control circuit 91 consists of the image control CPU 92, the image control work piece RAM 93, image control program ROM94, an image ROM 96, Video RAM 97, and image control IC 98. The image control CPU 92 determines the contents of a display in a liquid crystal display 5 according to the image control program stored in image control program ROM94 based on the parameter set up with the submicrocomputer 83. Image control program ROM94 stores the image control program and the various selection tables about a display in a liquid crystal display 5. The image control work piece RAM 93 is constituted as a temporary storage means when performing the above-mentioned image control program by the image control CPU 92. The image control IC 98 forms the image according to the contents of a display determined by the image control CPU 92, and outputs it to a liquid crystal display 5. An image ROM 96 stores the dot data for forming an image. Video RAM 97 consists of image control IC 98 as a temporary storage means when forming an image.

[0066] Next, a probability lottery table is explained with reference to drawing 8.

[0067] These probability lottery tables are referred to in probability lottery processing, drawing 8 (a) is used into a general game, and drawing 8 (b) is used into the game in [ general ] BB, and it determines the role of internal success in an election of each game.

[0068] The role of internal success in an election is determined using the numeric value of 1 by which any table is extracted from the numeric value which that random-number range of is 0-16383, and is in this range.

[0069] For example, when the random-number value extracted in the general game is 2851, the role of internal success in an election of this game serves as a "bell." Moreover, when the random-number values extracted in the general game are 11036-16383, the role of internal success in an election of the game serves as "HAZURE."

[0070] Next, with reference to drawing 9 - drawing 13, the halt control table used when internal success in an election is carried out at the role of small of a bell is explained.

[0071] The "halt control table number selection table" shown in drawing 9 determines the table referred to in case halt control of each reels 3L, 3C, and 3R is carried out, when the role of small of a bell carries out internal success in an election. That is, when the role of small of a bell carries out internal success in an election, with reference to any one of six kinds of the halt control tables, halt control is performed based on it.

[0072] Drawing 10 shows the relation between the halt control sequence of each reels 3L, 3C, and 3R in each table chosen by drawing 9, and the formation failure of winning a prize. For example, when the table number chosen on the halt control table number selection table of drawing 9 is the table number 1, if halt sequence is "left Nakamigi", a bell will win a prize. However, if it is the other halt sequence, a bell will win a prize. That is, in order to make a bell win a prize, the role of internal success in an election is a bell, and the halt control sequence of each reels 3L, 3C, and 3R needs to perform halt sequence corresponding to a table number.

[0073] Drawing 11 - drawing 13 explain concrete halt control of each reels 3L, 3C, and 3R in case the role of internal success in an election is a bell.

[0074] The "halt actuated valve position" and a "halt control location" of each reels 3L, 3C, and 3R are shown in the "halt control table." A "halt actuated valve position" expresses the code number of a pattern (pattern with the core specifically nearest to [ the core of a pattern is located above center line 8a, and / center line 8a ] a location) located in center line 8a, when the earth switches 7L, 7C, and 7R prepared corresponding to each reels 3L, 3C, and 3R are operated. A "halt control location" expresses the code number of the pattern by which a deactivate indication is carried out to the location of center line 8a, when the reel by which halt actuation was performed stops. Here, in this example, the so-called "number of slipping coma" is made into maximum "4 coma." For example, when the "cherry" of a code number "12" reaches during rotation of right reel 3R in the location of center line 8a and earth-switch 7R is operated, halt control of the right reel 3R can be carried out so that the deactivate indication of the "blue 7" of a code number "08" may be carried out to the location of center line 8a.

[0075] Drawing 11 shows the halt control table for a hit. After carrying out internal success in an election at "the role of small of a bell", this table is used, in case a "bell-bell-bell" carries out halt control of the reel so that winning a prize of a list and the role of small of a bell may be materialized along effective Rhine.

[0076] In drawing 11, the "halt control location" of left reel 3L is either a code number "03", "08", "11", "15" or "19", and the pattern corresponding to these is a "bell."

[0077] In drawing 11, the "halt control location" of central reel 3C is either a code number "03", "07", "11", "15" or "19", and the pattern corresponding to these is a "bell."

[0078] In drawing 11, the "halt control location" of right reel 3R is either a code number "01", "05", "10", "14" or

"18", and the pattern corresponding to these is a "bell."

[0079] As mentioned above, when the halt control table for a hit shown in drawing 11 is used for halt control of each reels 3L, 3C, and 3R, the deactivate indication of the "bell" will be carried out to the location of the center in the location 4L and 4C of center line 8a, i.e., display windows, and 4R, and winning a prize will be materialized.

[0080] In drawing 12, order push and a defeat by a wide margin show the halt control table for a gap. This table is used, in case halt control of the reel is carried out so that a "bell-bell-bell" may not be located in a line with "the role of small of a bell" along effective Rhine (it becomes abortive like [ winning a prize of the role of small of a bell ]), after carrying out internal success in an election. Here, the halt control location to the halt actuated valve position of left reel 3L and central reel 3C is the same as what is shown in drawing 11.

[0081] In drawing 12, the "halt control location" of right reel 3R is either a code number "02", "06", "11", "15" or "19", and the pattern corresponding to these is "Replay."

[0082] As mentioned above, since the deactivate indication of the "bell" is carried out to the location of the center in display window 4L and 4C and the deactivate indication of the "Replay" is carried out to the location of the center in display window 4R when the halt control table for a gap is used for halt control of each reels 3L, 3C, and 3R, it becomes abortive winning [ of the role of small of a bell ] a prize the order push and the defeat by a wide margin shown in drawing 12.

[0083] In drawing 13, reverse push shows the halt control table for a gap. This table is used, in case halt control of the reel is carried out so that a "bell-bell-bell" may not be located in a line with "the role of small of a bell" along effective Rhine (it becomes abortive like [ winning a prize of the role of small of a bell ]), after carrying out internal success in an election. Here, the halt control location to central reel 3C and the halt actuated valve position of right reel 3R is the same as what is shown in drawing 11.

[0084] In drawing 13, the "halt control location" of left reel 3L is either a code number "04", "09", "12", "17" or "20", and the pattern corresponding to these is "Replay."

[0085] As mentioned above, since the deactivate indication of the "Replay" is carried out to the location of the center in left display window 4L and the deactivate indication of the "bell" is carried out to the location of the center in display window 4C and 4R when the halt control table for a gap is used for halt control of each reels 3L, 3C, and 3R, it becomes abortive winning [ of the role of small of a bell ] a prize the reverse push shown in drawing 13.

[0086] Only when "six kinds" is adopted as halt sequence as mentioned above and halt actuation is performed in any 1 sequence according to a table number, he is trying for a list and winning a prize to be materialized by the "bell-bell-bell" along effective Rhine in the example here. For this reason, when the 2nd halt actuation is performed, it may be decided whether a "bell-bell-bell" is located in a line along effective Rhine. For example, it is the case where "1 (the halt sequence of corresponding is "left Nakamigi")" was adopted as a table number, and left reel 3L is operated as the 1st halt actuation. That is, when the 1st halt actuation is performed, it may not necessarily be clear whether a "bell-bell-bell" is located in a line along effective Rhine. Moreover, suppose in the example that a "bell-bell-bell" is surely stood in a line along with center line 8a. So, in the example, as shown in drawing 12 and drawing 13, it is supposed that two halt control tables for blanks are used. In addition, when a table number is "2", "3", "4", "5", or "6", winning a prize of the role of small of a bell is materialized by performing halt actuation respectively by "inside right and left" "during right and left", the "Nakamigi left", "the inside of right and left", or "\*\*\*\*\*."

[0087] Drawing 14 shows an "initiation sound selection table." This random-number range is 0-127. This initiation sound is a sound \*\*\*\*(ed) with game initiation, and six kinds are established in all. In this table, an initiation sound is chosen based on the current count of \*\*\*\* (ream Chillan), and the extracted random-number value.

[0088] On this table, from the extracted random-number value, a lottery value is subtracted sequentially from the upper line, and it is made to \*\*\*\* the initiation sound of a line which became negative. for example, when the present count of \*\*\*\* is 3 times and the extracted random-number value is "98", a lottery value "127" subtracts from this "98" first -- having -- "-29" -- it becomes. Since this value becomes negative, the initiation sound in this case turns into the initiation sound 4.

[0089] Drawing 15 shows "the count selection table of AT", and "AT motion lottery table." "The count selection table of AT" is [ 0-4095, and "AT motion lottery table of this random-number range" ] 0-255.

[0090] First, "the count selection table of AT" shown in (a) chooses the count of AT based on the current count of \*\*\*\*, and the extracted random-number value. Although carried out to the count of AT chosen on this table including 0 times, when 0 times is chosen here, AT does not occur, that is, means HAZURE \*\*\*\*\* in the lottery of AT.



Moreover, on this table, the count of AT at the time of being easy to win AT (1 time or more being easy to be chosen), and winning it becomes large, so that the count of \*\*\*\* is large. The approach of a lottery is the same as that of an above-mentioned case.

[0091] And "AT motion lottery table" shown in (b) is used when choosing whether this AT1 batch is made to exercise. Here, when motion is chosen, ten count games of information of the order of push of a bell are set. That is, AT starts here. The approach of a lottery is the same as that of \*\*\*\*.

[0092] A command table is explained to drawing 16 and drawing 17. These commands are transmitted to the sub control circuit 82 from a main control circuit 81, and this transmission is only transmission of the one direction from the main control circuit 81 to the sub control circuit 82. It connects with 16 data signal lines and one signal line between the sub control circuits 82 from the main control circuit 81. And these commands have 2 bytes, 4 bytes, or 6-byte composition, and in order to transmit by 16 data signal lines, they are transmitted as one command by 1, 2, or 3 sequences.

[0093] If a start command is explained among these commands, the halt control table number chosen when the classification of the role of internal success in an election, the game condition, and the role of internal success in an election of this game were a bell will be transmitted as one command. The same is said of other commands. Moreover, the command shown in drawing 16 and drawing 17 is the example, and is transmitting information required for the control performed in a sub control circuit besides these.

[0094] Next, the control action of CPU41 of a main control circuit 81 is explained with reference to the Main flow chart shown in drawing 18 - drawing 24.

[0095] Introduction and a power source are switched on (1 [step / [it is hereafter displayed as ST] ]), and CPU41 initializes a full power port (ST2). Then, it judges whether it is a power down error (ST3). In a power down error here, it moves to processing of ST2, and when it is not a power down error, it moves to processing of ST4. Initialization of CPU41 is performed in processing of ST4. Then, it judges whether it is a RAM error (ST5). Here, in a RAM error, a RAM error is displayed. Specifically, the display "rr" is performed to the medal expenditure drop constituted by the 7 segment LED. In addition, the fault reading and RAM78 cannot write a RAM error normally is said.

[0096] And in not being a RAM error, it judges whether the key type switch for a setup is "ON" (ST6). When the key type switch for a setup is "ON", after performing six steps of setting processings, it moves to processing of ST12. Moreover, when the key type switch for a setup is "OFF", it moves to processing of ST8. In processing of ST8, it judges whether a battery back-up is normal. When a battery back-up is normal, after clearing the free space of a return address and RAM78, all registers are returned to the output state at the time of power-source cutoff (ST9), and input port is updated in the condition at the time of a power-source return, and it returns to the condition at the time of power-source cutoff (ST10).

[0097] When a battery back-up is not normal, the initial value of the set point is set (ST11). Then, all the fields of RAM78 are cleared (ST12). Here, 12 or less-ST processing is performed also when the key type switch for a setup is "ON" in decision of ST6, and it goes via six steps of setting processings. Then, each set point is stored (ST13) and commo data is initialized (ST14). And CPU41 clears RAM78 at the time of game termination (ST15). Then, it judges whether there is any demand of an automatic injection of a medal (ST16). The case where there is a demand of an automatic injection is a case where winning a prize of a re-game is materialized in a front game. When there is a demand of an automatic injection of a medal, after carrying out the automatic injection of the medal for an injection demand (ST17) and transmitting a game medal injection command to a sub control circuit, it moves to processing of ST20. When there is no demand of an automatic injection of a medal, an injection of the medal from medal input port and a bed carbon button is received (ST19), and it moves to processing of ST20.

[0098] In processing of ST20, a start lever judges whether it is "ON", and when a start lever is "ON", it judges whether 4.1 seconds have passed since the front game (ST21). Specifically based on the value of the 1 game watch-dog timer set by processing of below-mentioned ST24, it judges. When 4.1 seconds have not passed since a front game, the game initiation latency time is digested (ST22), and it moves to processing of ST23.

[0099] In processing of ST23, CPU41 extracts the random number for a lottery. Specifically, a random number is extracted from the range of 0-16383. Then, a 1 game watch-dog timer is set (ST24), and game house keeping processing for judging a current game condition is performed (ST25). Next, probability lottery processing is performed (ST26). In this probability lottery processing, the role of internal success in an election is determined based on the probability lottery table corresponding to the random-number value extracted by processing of ST23, and the current

game condition judged by game house keeping processing. The random-number value which serves as internal success in an election for every role of winning a prize is beforehand defined as the probability lottery table was mentioned above.

[0100] Next, CPU41 performs hit pilot-light lighting lottery processing (ST27), and performs halt control table selection processing (the detailed explanation about this halt control table selection processing is mentioned later) (ST28). And a start command is transmitted to a sub control circuit as transmitting processing at the time of game initiation (ST29), and it initializes to reel rotation initiation (ST30).

[0101] Next, it judges whether an earth switch is "ON" (ST31), when an earth switch is "ON", it moves to processing of ST33, and when an earth switch is "OFF", it moves from CPU41 to processing of ST32. In processing of ST32, it judges whether the value of an automatic-stay timer is "0", when the value of an automatic-stay timer is "0", it moves to processing of ST33, and when the value of an automatic-stay timer is not "0", it moves to processing of ST31. In processing of ST33, it slides from a success-in-an-election demand (the role of internal success in an election), the halt control table which (rotation location of the reel at the time of halt actuation), and is chosen, and the number of coma is determined. [ a table etc. ] [ pattern ]

[0102] And a reel is rotated several slipping coma minutes determined by processing of ST33 (ST34). Next, the deactivate request of the reel is set (ST35), and a reel PAUSE command is transmitted to a sub control circuit (ST36).

[0103] and a \*\*\*\*\* [ that all the reels stopped ] -- judging (ST37) -- when all the reels stop, it moves to processing of ST38, and when all reels have not stopped, it moves to processing of ST31. And after performing production processing at the time of game termination (ST38), winning-a-prize retrieval is performed (ST39). Then, it judges whether a winning-a-prize flag is normal (ST40), and when a winning-a-prize flag is normal, it moves to processing of ST42, and when a winning-a-prize flag is not normal, an illegal error is displayed (ST41) and processing is interrupted.

[0104] In ST42, it judges whether it is the winning-a-prize number of sheets 0. Specifically, it judges whether winning a prize of one of roles (except for a re-game) was materialized. When winning a prize is materialized, a reservoir or expenditure of a medal is performed according to a condition (is [ under / BB actuation / or RB ] it under actuation or not?), and the role of winning a prize (ST43).

[0105] Next, when it judges whether CPU41 is [ BB and RB ] under actuation (ST44) and is [ BB and RB ] under actuation, it moves to processing of ST45, and when it is not [ BB and RB ] under actuation, it moves to processing of ST48. In processing of ST45, the number check processing of BB and RB games is performed, and it judges whether it is at the termination time of BB (ST46). After transmitting BB quit command, at the time of BB termination, the RAM clearance at the time of BB termination is processed (ST47), and it moves from it to processing of ST49. In ST46, when it is not BB termination, it moves to processing of ST49. When it is not [ BB and RB ] under actuation in ST44, BB and RB winning-a-prize check processing (ST48) are performed, and it moves to processing of ST49. In processing of ST49, bonus 7SEG control processing is performed and it moves to processing of ST15.

[0106] Next, the halt control table selection processing performed by ST28 is explained. As for introduction and CPU41, the role of internal success in an election of this game judges that it is a bell (ST50). When the role of internal success in an election of this game is a bell, it moves to processing of ST51, and when the role of internal success in an election of this game is not a bell, it moves to processing of ST52. In processing of ST51, a random-number value is extracted and one halt control table is chosen based on a halt control table selection table. Moreover, in processing of ST52, the halt control table beforehand defined for every role of internal success in an election is chosen.

[0107] Next, with reference to drawing 25 - drawing 32, control processing of the sub control circuit 82 is explained.

[0108] First, drawing 25 explains the outline of processing of a sub control circuit. Introduction and a factice CPU 84 distinguish whether the game of whether the start command was received and 1 began (ST101). When a start command is received, the number count processing of the games between bonuses (ST102), count count processing of \*\*\*\* (ST103), initiation sound selection processing (ST104), AT lottery processing (ST105), and AT executive operation (ST106) are performed one by one, and it returns to processing of ST101 again after these processings.

[0109] When the start command is not received in ST101, it distinguishes whether one of bonuses was completed in whether the bonus game status-change directive command was received and this game (ST107). When a bonus game status-change directive command is received, the number of games between bonuses clear processing is performed (ST108), and it returns to processing of ST101 again. Moreover, in ST107, when the bonus game status-change directive command is not received, ST108 is not processed but it returns to processing of ST101.

[0110] Drawing 26 shows the number count processing of the games between bonuses shown in ST102, and the

initiation sound selection processing shown in ST104.

[0111] The number count processing of the games between bonuses shown in drawing 26 (a) judges first whether it is among a general game (ST111), and adds it to the number counter of the games between bonuses which is stored in the predetermined field of RAM in a general game one time (ST112). And in not being among a general game, it is making processing return as it is. The game after a bonus is completed can be counted now by performing such processing.

[0112] Moreover, the initiation sound selection processing shown in drawing 26 (b) chooses the initiation sound of this game using the value of the present count counter of \*\*\*\*, and the extracted random-number value based on the initiation sound selection table shown in drawing 14 (ST113). And the selected initiation sound is \*\*\*\*(ed) (ST114).

[0113] Drawing 26 shows the count count processing of \*\*\*\* shown in ST103. In this processing, first, the value of the number counter of the games between bonuses judges whether they are less than 50 games, after a bonus ends that it is 50 or less, i.e., this game, (ST121). Here, when the value of the number counter of the games between bonuses is judged to be 50 or less, it judges whether the bonus carried out internal success in an election in this game (ST122). Here, when a bonus carries out internal success in an election, it adds to the count counter of \*\*\*\* one time (ST123), and processing is returned. And when the value of the number counter of the games between bonuses is not 50 or less, or when the bonus has not carried out internal success in an election in this game, the value of the number counter of the games between bonuses judges that it is 51 (ST124). And when the value of the number counter of the games between bonuses is 51, the value of a \*\*\*\* counter is cleared (ST125), and when the value of the number counter of the games between bonuses is not 51, processing is returned as it is.

[0114] By performing such processing, it is less than the number of games predetermined [ after bonus termination ], and it can judge further that it \*\*\*\*(ed) having carried out internal success in an election on a bonus, and the count which \*\*\*\*(ed) can be further counted now.

[0115] Drawing 28 shows AT lottery processing shown in ST105. By this processing, it judges first whether internal success in an election was carried out to a plum in this game (ST131). Here, when it is judged by the plum that internal success in an election was carried out, based on the count selection table of AT shown in drawing 15 (a), the count of AT is chosen with reference to the value of the present count counter of \*\*\*\*, and the extracted random-number value (ST132). And it adds to AT stock counter in which the selected count of AT is stored to the predetermined field of RAM (133), and processing is returned. When it is judged by the plum by ST131 that internal success in an election has not been carried out, processing is returned as it is.

[0116] Drawing 29 shows the number of games between bonuses clear processing shown in ST108. When RB is usually completed and the game in [ general ] BB is completed first, or when RB which is the 3rd time among BB is completed, the number of the games between bonuses stored in the predetermined field of RAM is cleared (ST144), and he is trying to return processing as it is in this processing, when other.

[0117] Since the number of the games between bonuses is cleared when a certain bonus is completed by performing such processing, the number of games from bonus termination can be counted.

[0118] Drawing 30 shows the executive operation of AT shown in ST106. First, the value of the count counter of information judges that it is one or more (ST201). When the value of the count counter of information is one or more, the order information processing (ST204) of push is performed. And when the value of the count counter of information is not one or more, the value of the count stock counter of AT judges that it is one or more (ST202). When the value of the count stock counter of AT is not one or more, processing is returned, and when the value of the count stock counter of AT is one or more, AT motion lottery processing (ST203) is performed.

[0119] When the value of the above-mentioned count counter of information becomes one or more, it is shown that it is among AT. Moreover, when the value of the count stock counter of AT becomes one or more, it is shown that it is [ AT ] under incubation.

[0120] Drawing 31 shows the order information processing of push shown in ST204. First, the value of the count counter of the order information of push is subtracted one time (ST205). And the role of internal success in an election of this game judges that it is a bell (ST206). Although processing is returned when the role of internal success in an election of this game is not a bell, when the role of internal success in an election of this game is a bell, the information for making a bell win a prize based on the halt control table number chosen is reported (ST207), and processing is returned.

[0121] Drawing 32 shows AT motion lottery processing shown in ST203. First, a random-number lottery is performed

based on AT motion lottery table (ST208). As a result of this lottery, it judges whether motion was won or not (ST209), when motion is not won, processing is returned, when motion is won, the value of 10 is added to the count counter of the order information of push (ST210), and it subtracts from the value of the count stock counter of AT one time (ST211), and processing is returned.

[0122] As mentioned above, although the example was explained, this invention is not restricted to this. In the example, although explanation of production was explained using the initiation sound, you may carry out to other various sounds and it may be made to perform image production not only by a sound but the liquid crystal display etc.

[0123] Moreover, the timing extraction of a random-number value which refers to the table shown in the example can be performed to the timing of arbitration.

[0124] Moreover, although the order of push was reported to that it is decided by the difference in the order of push as a AT that the success or failure of winning a prize will be, you may make it adopt AT which reports the role of internal success in an election in addition to this. Furthermore, as a situation advantageous to a game person, if many game media can be gained, BB, RB, etc. are employable in addition to AT.

[0125] Furthermore, it is applicable to other game machines, such as a pachinko game machine besides a slot machine like this example. Furthermore, it can apply also to a game program which uses actuation of such a game machine as home video game machines, and performs it in false, and a game can be performed. In that case, the record medium of arbitration can be used for the record medium which records a game program for CD-ROM, FD (flexible disk), etc.

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[Translation done.]

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1. This document has been translated by computer. So the translation may not reflect the original precisely.
2. \*\*\*\* shows the word which can not be translated.
3. In the drawings, any words are not translated.

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## DESCRIPTION OF DRAWINGS

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### [Brief Description of the Drawings]

[Drawing 1] It is the perspective view showing the appearance of the slot machine by the operation gestalt of this invention.

[Drawing 2] It is the front view showing the appearance of the slot machine by the operation gestalt of this invention.

[Drawing 3] It is the block diagram showing the configuration of the electrical circuit of the slot machine by the operation gestalt of this invention.

[Drawing 4] It is the block diagram showing the configuration of the sub control circuit of the slot machine by the operation gestalt of this invention.

[Drawing 5] It is drawing having shown the pattern train arranged on the reel.

[Drawing 6] It is drawing showing the role of winning a prize and expenditure number of sheets corresponding to winning-a-prize pattern combination.

[Drawing 7] It is drawing having shown the example of the image which reports halt sequence.

[Drawing 8] It is drawing having shown the probability lottery table.

[Drawing 9] It is drawing having shown the halt control table number selection table.

[Drawing 10] It is drawing having shown the order of push for every halt table number, and correspondence of winning-a-prize formation failure.

[Drawing 11] It is drawing having shown the example of a halt control table.

[Drawing 12] It is drawing having shown the example of a halt control table.

[Drawing 13] It is drawing having shown the example of a halt control table.

[Drawing 14] It is drawing having shown the initiation sound selection table.

[Drawing 15] It is drawing having shown the count selection table of AT, and AT motion lottery table.

[Drawing 16] It is drawing having shown the example of the command transmitted to a sub control circuit from a main control circuit.

[Drawing 17] It is drawing having shown the example of the command transmitted to a sub control circuit from a main control circuit.

[Drawing 18] It is the flow chart which shows processing of a main control circuit.

[Drawing 19] It is the flow chart which shows processing of a main control circuit.

[Drawing 20] It is the flow chart which shows processing of a main control circuit.

[Drawing 21] It is the flow chart which shows processing of a main control circuit.

[Drawing 22] It is the flow chart which shows processing of a main control circuit.

[Drawing 23] It is the flow chart which shows processing of a main control circuit.

[Drawing 24] It is the flow chart which shows halt control table selection processing.

[Drawing 25] It is the flow chart which shows processing of a sub control circuit.

[Drawing 26] It is the flow chart which shows the number count processing of the games between bonuses, and initiation sound selection processing.

[Drawing 27] It is the flow chart which shows the count count processing of \*\*\*\*.

[Drawing 28] It is the flow chart which shows AT lottery processing.

[Drawing 29] It is the flow chart which shows the number of games between bonuses clear processing.

[Drawing 30] It is the flow chart which shows AT executive operation.

[Drawing 31] It is the flow chart which shows the order information processing of push.

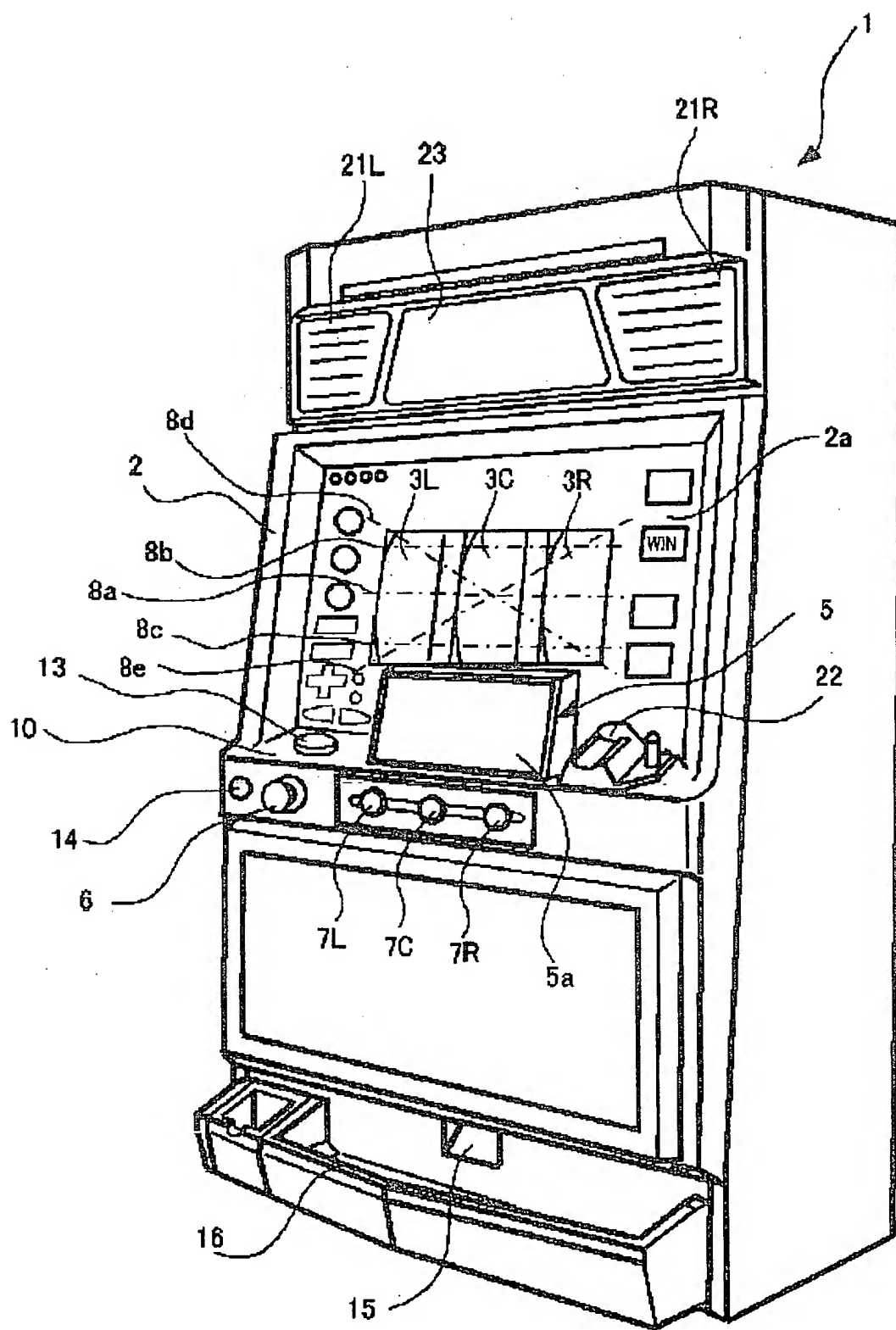
[Drawing 32] It is the flow chart which shows AT motion lottery processing.

[Description of Notations]

- 1 Game Machine
- 2 Cabinet
- 2a Panel display
- 3L, 3C, 3R Reel
- 4L, 4C, 4R Display window
- 5 Liquid Crystal Display
- 5a Display screen
- 6 Start Lever
- 7L, 7C, 7R Earth switch
- 10 Plinth Section
- 11 1-BET Switch
- 12 2-BET Switch
- 13 Maximum-BET Switch
- 14 Reservoir Medal Settlement-of-Accounts Switch
- 15 Game Medal Expenditure Opening
- 16 Game Medal Receptacle Section
- 17 WIN Lamp
- 18 Expenditure Display
- 19 Game Medal Reservoir Number-of-Sheets Display
- 20 Count Display of Accessory
- 21L, 21R Loudspeaker
- 22 Medal Input Port
- 23 Dividend Table Panel
- 24 Game Medal Injection Lamp
- 25 Game Start Identification Lamp
- 26 Cross-Joint Carbon Button
- 27 O Carbon Button
- 28 X Carbon Button
- 29 Door Closing Motion and Close Discharge Equipment
- 31 Game Deactivate Indication Machine
- 32 Re-Game Drop
- 33 RB Actuation Drop
- 34 BB Actuation Drop

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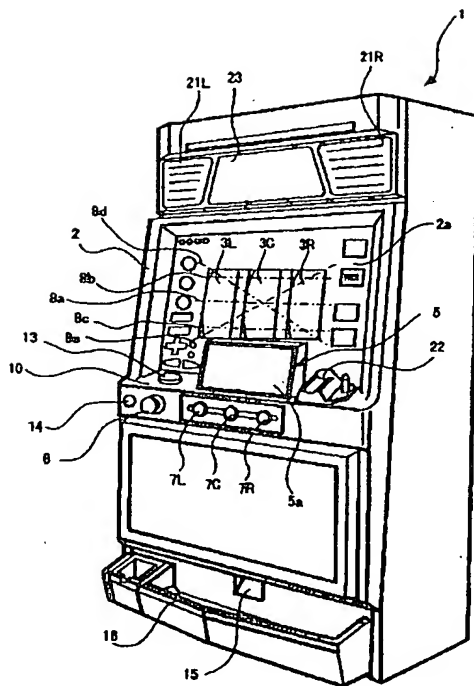
[Translation done.]



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【図1】

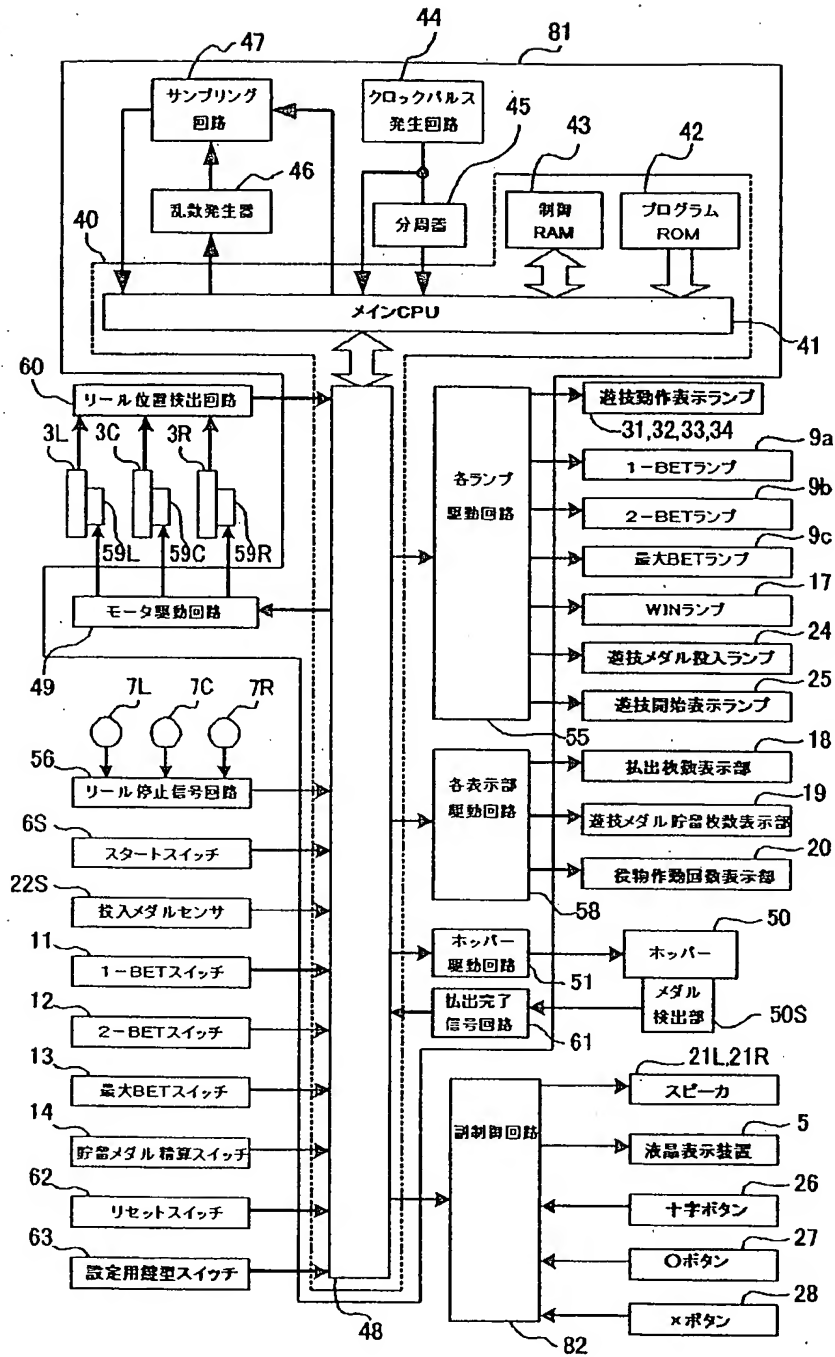


【図6】

各遊技状態における入賞図柄組合せに対応する役及び払出枚数

図柄組合せ	一般遊技状態	BB中 一般遊技状態	RB 遊技状態
赤7-赤7-赤7	BB 15枚	—	—
青7-青7-青7	BB 15枚	—	—
BAR-BAR-BAR	RB 15枚	—	—
ベル-ベル-ベル	ベルの小役 15枚	ベルの小役 15枚	—
プラム-プラム-プラム	プラムの小役 6枚	プラムの小役 6枚	—
Replay-Replay-Replay	弱遊技 0枚	RB (JAC IN) 15枚	役物 15枚
チェリー - any - any	チェリーの役 2又は4枚	チェリーの役 2又は4枚	—

【図3】

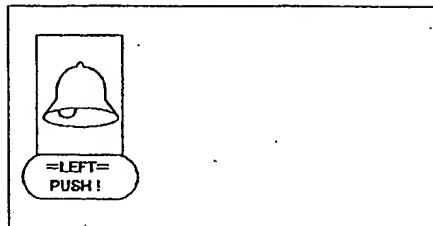


【図5】

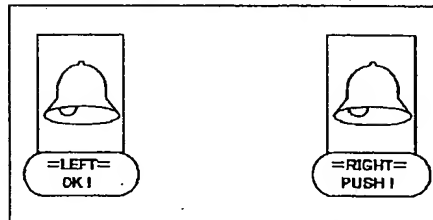
左リール		中リール		右リール	
00	赤7	00	赤7	00	赤7
01	チェリー	01	プラム	01	ベル
02	青7	02	リプレイ	02	リプレイ
03	ベル	03	ベル	03	BAR
04	リプレイ	04	チェリー	04	プラム
05	赤7	05	リプレイ	05	ベル
06	チェリー	06	チェリー	06	リプレイ
07	青7	07	ベル	07	チェリー
08	ベル	08	BAR	08	青7
09	リプレイ	09	チェリー	09	チェリー
10	プラム	10	リプレイ	10	ベル
11	ベル	11	ベル	11	リプレイ
12	リプレイ	12	青7	12	チェリー
13	BAR	13	リプレイ	13	プラム
14	赤7	14	チェリー	14	ベル
15	ベル	15	ベル	15	リプレイ
16	プラム	16	BAR	16	チェリー
17	リプレイ	17	プラム	17	青7
18	プラム	18	リプレイ	18	ベル
19	ベル	19	ベル	19	リプレイ
20	リプレイ	20	チェリー	20	チェリー

【図7】

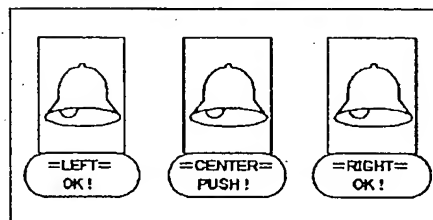
(1) 左の停止ボタンを操作すべきことを通知する図像



(2) 右の停止ボタンを操作すべきことを通知する図像



(3) 中央の停止ボタンを操作すべきことを通知する図像



【図11】

当り用停止制御テーブル(内部当選位:ベルの小役)

左のリール		中央のリール		右のリール	
停止操作 位置	停止制御 位置	停止操作 位置	停止制御 位置	停止操作 位置	停止制御 位置
00	19	00	19	00	18
01	19	01	19	01	01
02	19	02	19	02	01
03	03	03	03	03	01
04	03	04	03	04	01
05	03	05	03	05	05
06	03	06	03	06	05
07	03	07	07	07	05
08	08	08	07	08	05
09	08	09	07	09	05
10	08	10	07	10	10
11	11	11	11	11	10
12	11	12	11	12	10
13	11	13	11	13	10
14	11	14	11	14	14
15	15	15	15	15	14
16	15	16	15	16	14
17	15	17	15	17	14
18	15	18	15	18	18
19	19	19	19	19	18
20	19	20	19	20	18

【図14】

開始音選択テーブル

		連チャン回数カウンタ値					
		0	1	2	3	4	5以上
開始音 種別	開始音1	127	—	—	—	—	—
	開始音2	1	127	—	—	—	—
	開始音3	—	1	127	—	—	—
	開始音4	—	—	1	127	—	—
	開始音5	—	—	—	1	127	1
	開始音6	—	—	—	—	1	127

【図10】

テーブル番号と、停止順序と、「ベルの小役」の入賞の成否との関係

		テーブル番号					
		1	2	3	4	5	6
停止順序	左中右	成立	不成立	不成立	不成立	不成立	不成立
	左右中	不成立	成立	不成立	不成立	不成立	不成立
	中左右	不成立	不成立	成立	不成立	不成立	不成立
	中右左	不成立	不成立	不成立	成立	不成立	不成立
	右左中	不成立	不成立	不成立	不成立	成立	不成立
	右中左	不成立	不成立	不成立	不成立	不成立	成立

【図12】

図12・中押しはずれ用停止制御テーブル(内部当選役:ベルの小役)

左のルール		中央のルール		右のルール	
停止操作位置	停止制御位置	停止操作位置	停止制御位置	停止操作位置	停止制御位置
00	19	00	19	00	19
01	19	01	19	01	19
02	19	02	19	02	02
03	03	03	03	03	02
04	03	04	03	04	02
05	03	05	03	05	02
06	03	06	03	06	06
07	03	07	07	07	06
08	08	08	07	08	06
09	08	09	07	09	06
10	08	10	07	10	06
11	11	11	11	11	11
12	11	12	11	12	11
13	11	13	11	13	11
14	11	14	11	14	11
15	15	15	15	15	15
16	15	16	15	16	15
17	15	17	15	17	15
18	15	18	15	18	15
19	19	19	19	19	19
20	19	20	19	20	19

【図13】

逆押しはずれ用停止制御テーブル(内部当選役:ベルの小役)

左のルール		中央のルール		右のルール	
停止操作位置	停止制御位置	停止操作位置	停止制御位置	停止操作位置	停止制御位置
00	20	00	19	00	18
01	20	01	19	01	01
02	20	02	19	02	01
03	20	03	03	03	01
04	04	04	03	04	01
05	04	05	03	05	05
06	04	06	03	06	05
07	04	07	07	07	05
08	04	08	07	08	05
09	09	09	07	09	05
10	09	10	07	10	10
11	09	11	11	11	10
12	12	12	11	12	10
13	12	13	11	13	10
14	12	14	11	14	14
15	12	15	15	15	14
16	12	16	15	16	14
17	17	17	15	17	14
18	17	18	15	18	18
19	17	19	19	19	18
20	20	20	19	20	18

【図15】

(a) AT回数選択テーブル

		遊チヤン回数カウンタ値					
		0	1	2	3	4	5以上
A T 回 数	0回	4000	3000	1500	1000	500	60
	1回	90	951	2012	1523	821	532
	2回	2	52	38	855	1201	1847
	5回	2	48	486	632	1301	425
	10回	1	34	27	41	214	388
	30回	1	11	35	45	59	833

(b) AT発動抽選テーブル

発動	32
潜伏	224

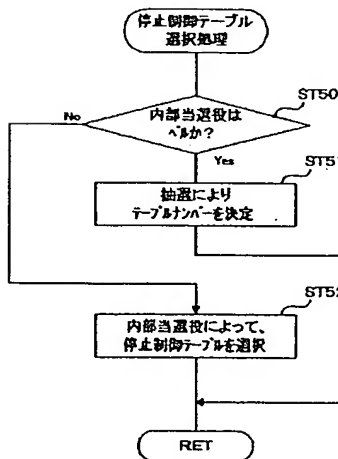
【図16】

スタートコマンド		ボーナス遊技状態変更指示コマンド	
1	内部当選役	1	状態
2	BB	2	通常RB終了
	RB		RB終了状態
	再遊技		BB中一般遊技終了
	ベル		BB中1回目のRB終了
	フラム		BB中2回目のRB終了
	チェリー		BB中3回目のRB終了
	ハズレ		—
3	遊技状態		—
4	一般遊技中		—
	BB内部当選中		—
	RB内部当選中		—
	BB作動中		—
	RB作動中		—
	—		—
	—		—
5	停止制御テーブル		—
6	テーブルNo. 1		—
	テーブルNo. 2		—
	テーブルNo. 3		—
	テーブルNo. 4		—
	テーブルNo. 5		—
	テーブルNo. 6		—
	—		—

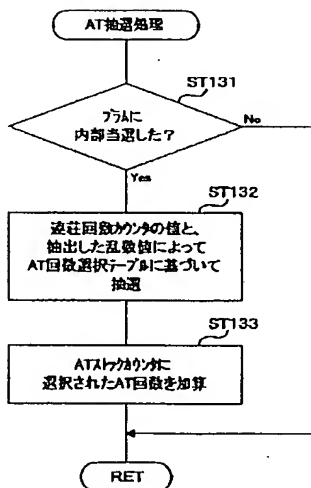
【図17】

入賞コマンド		遊技メダル投入コマンド	
1	入賞役	1	投入枚数
2	BB	2	1枚
	RB		2枚
	再遊技		3枚
	ベル		—
	フラム		—
	チェリー		—
	ハズレ		—
3	遊技状態		—
4	一般遊技中		—
	BB内部当選中		—
	RB内部当選中		—
	BB作動中		—
	RB作動中		—
	—		—
	—		—
5	入賞ライン		—
6	中段		—
	上段		—
	下段		—
	右上がり		—
	右下がり		—
	—		—
	—		—

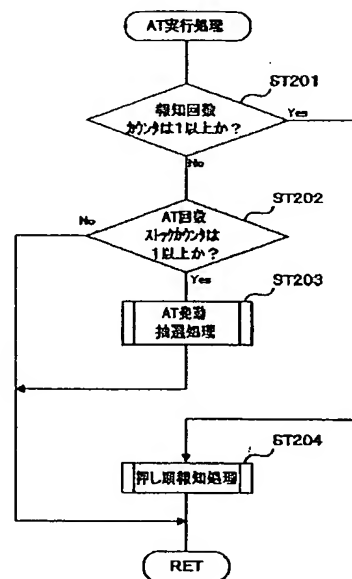
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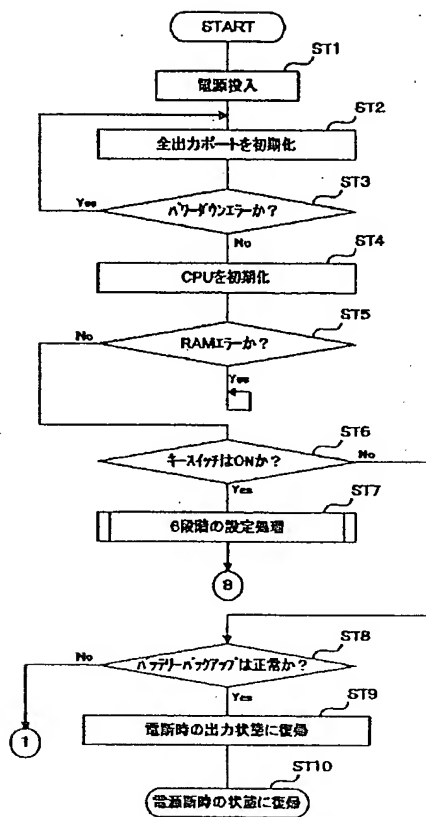
【図28】



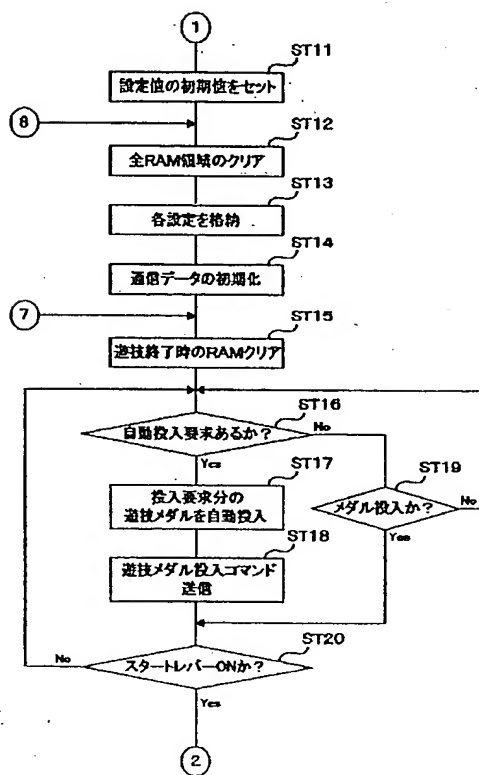
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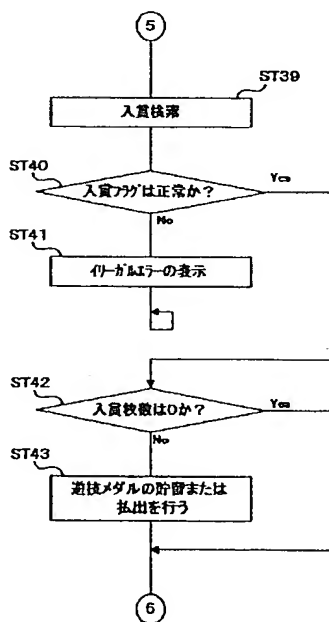
【図18】



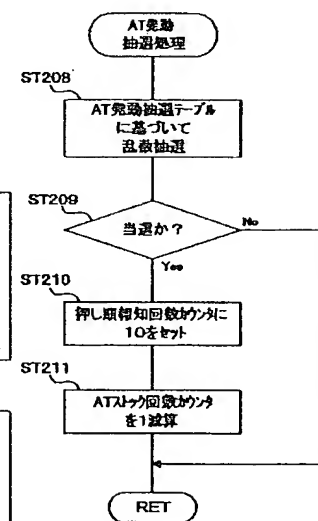
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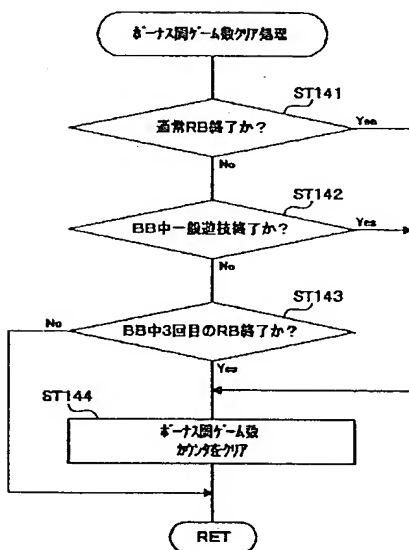
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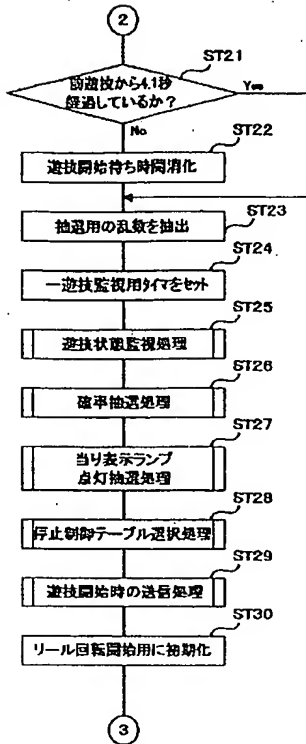
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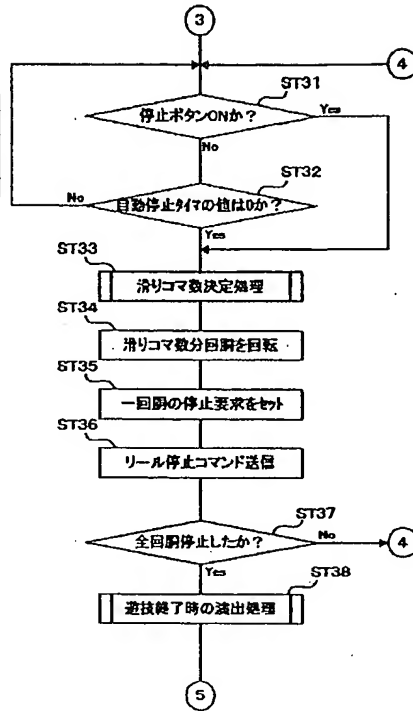
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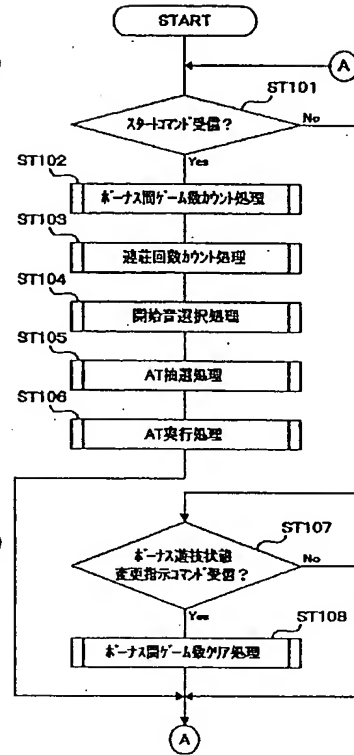
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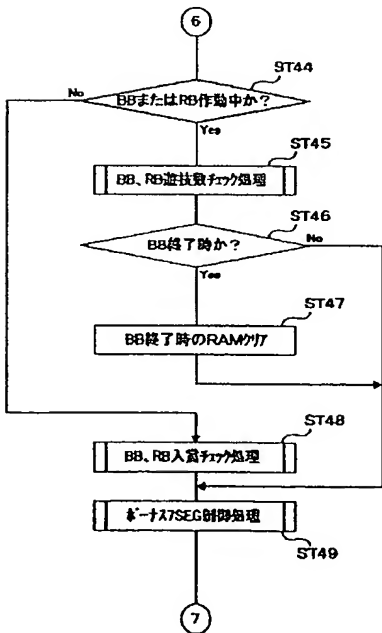
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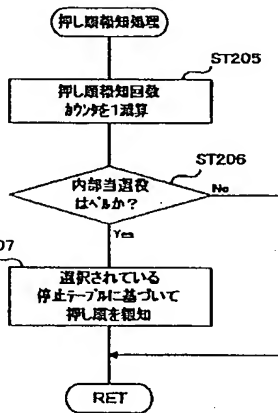
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【図23】

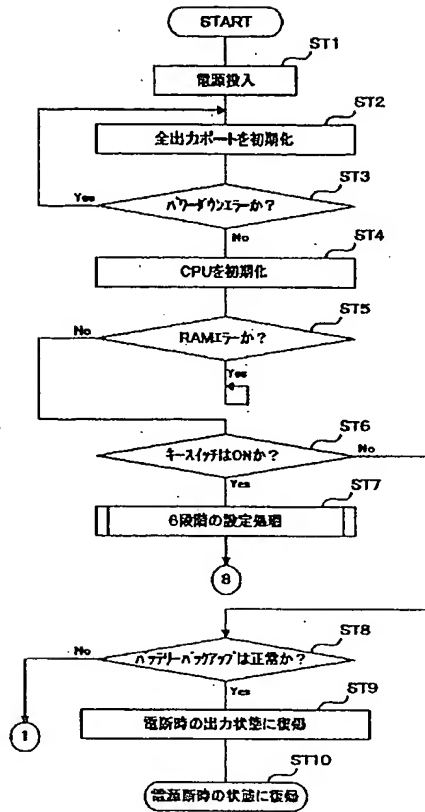


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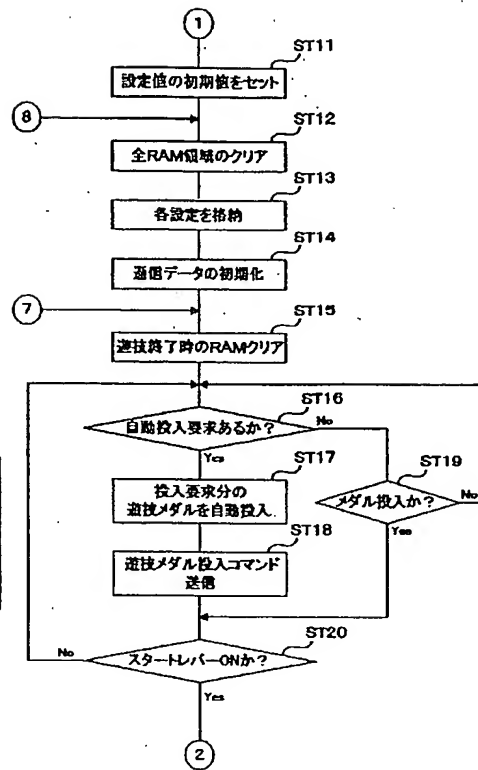




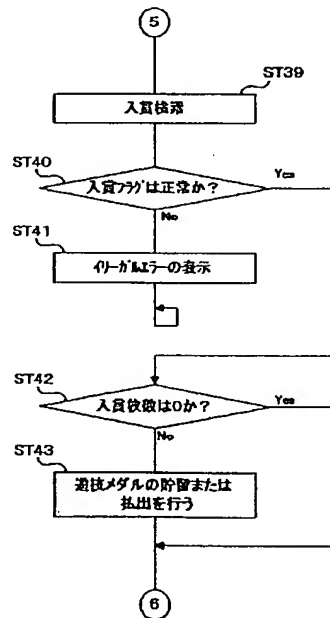
【図18】



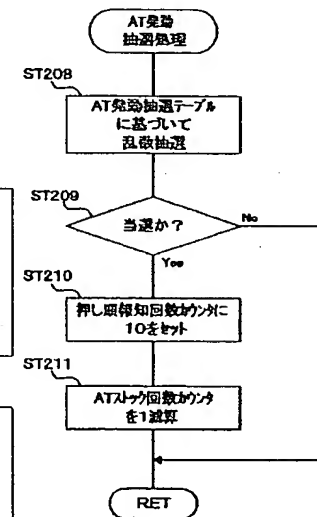
【図19】



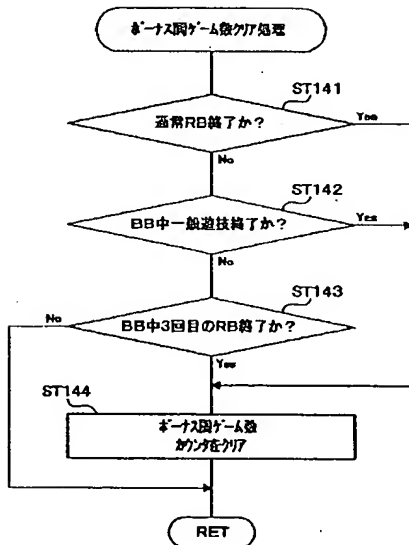
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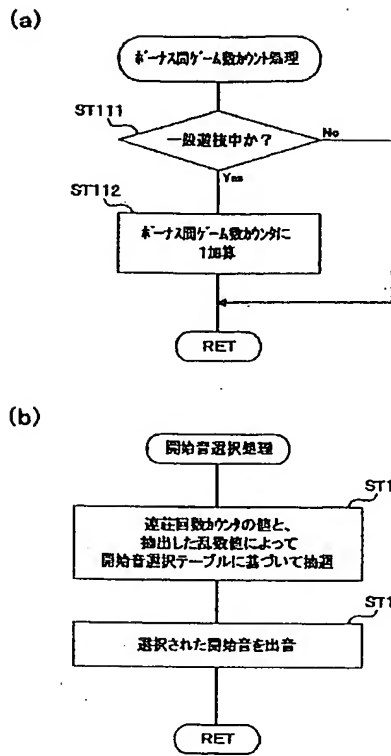
【図32】



【図29】



【図26】



【図27】

